

REPORT  
OF THE  
MINISTER OF AGRICULTURE  
FOR THE  
DOMINION OF CANADA  
FOR THE  
YEAR ENDED MARCH 31  
1909

*PRINTED BY ORDER OF PARLIAMENT*



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EXCELLENT MAJESTY  
1909







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REPORT  
OF THE  
MINISTER OF AGRICULTURE  
• 1908-09.

*To His Excellency the Right Honourable Sir Albert Henry George, Earl Grey, Viscount Howick, Baron Grey of Howick, in the County of Northumberland, in the Peerage of the United Kingdom, and a Baronet; Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, &c., &c., Governor General of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit to Your Excellency a report of the Department of Agriculture for the fiscal year ended March 31, 1909.

I.—GENERAL REMARKS.

A synopsis of the operations of the department and of the various branches thereof which have been efficiently carried out during the past year ended March 31, 1909, is laid before Your Excellency.

The legislation affecting the department during the fourth session of the Tenth Parliament after March 31, 1908, consisted of:—

Chapter 13, 7-8 Edward VII, intituled, 'An Act to repeal the Canned Foods Act.'

Chapter 29, 7-8 Edward VII, intituled, 'An Act to amend the Gold and Silver Marking Act.'

Chapter 30, 7-8 Edward VII, intituled, 'An Act respecting the sale and marking of manufactures of gold and silver and gold and silver plated ware.'

Chapter 35, 7-8 Edward VII, intituled, 'An Act to amend the Inspection and Sale Act.'

Chapter 47, 7-8 Edward VII, intituled, 'An Act to amend the Meat and Canned Foods Act.'



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Chapter 72, 7-8 Edward VII, intituled, 'An Act to amend the Timber Marking Act.'

By an order in council of April 6, 1908, the order in council of January 14, 1907, establishing regulations relating to animals quarantine was amended by expunging the words 'other than horses' in the second line of clause (a) of section 7 thereof, and by adding the following clause to section 7: '(d) The provisions of this section shall not apply to the importation of horses from any of the countries of Europe.'

These amendments to come into force and to have effect on and from the date of order.

Vide, *Canada Gazette*, vol. xli, page 2684.

By an order in council of May 21, 1908, it was ordered that on and after the first day of July, 1908, the regulations established by order in council of November 8, 1887, respecting 'animals for the improvement of stock,' be revoked, and the following regulations prescribed in respect of the free entry under the customs tariff of horses, cattle, sheep, goats, asses, swine and dogs, for the improvement of stock.

#### REGULATIONS.

1. No animal imported for the improvement of stock shall be admitted free of duty unless the importer is domiciled in Canada or is a British subject, and furnishes a certificate of the record and pedigree in a list of registers designated from time to time by the Minister of Customs, showing that the animal is pure bred, and has been admitted to full registry in a book of record established for the breed.

An affidavit by the owner, agent or importer that such animal is the identical animal described in said certificate of record and pedigree must be presented.

2. In case such certificate is not at hand at the time of the arrival of the animal, the entry for duty may be accepted subject to the refund of the duty upon production of the requisite certificates and proofs in due form satisfactory to the collector within one year from the time of entry.

3. The form of certificate of record and pedigree to be accepted for the free importation of animals for the improvement of stock, and the customs procedure in connection therewith shall be subject to the directions of the Minister of Customs.

Vide *Canada Gazette*, vol. xli, page 3097.

By an order in council of May 23, 1908, the regulations relating to a disease in animals known as glanders, established by order in council dated March 25, 1905, were amended by extending the time for retesting animals from 'four' months to 'twelve' months, and it was ordered that the words 'four months' in section 6 of the above cited order in council be expunged and the words 'twelve months' substituted therefor.

Vide *Canada Gazette*, vol. xli, p. 3097.

By an order in council of May 23, 1908, with a view to eradicating the disease known as mange existing amongst cattle throughout portions of the provinces of Saskatchewan and Alberta, the following regulations were made (see Appendix No. 14).



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In November of this year, I started for Rome, Italy, for the purpose of representing Canada at the General Assembly of the International Institute of Agriculture, accompanied by my secretary, Mr. T. K. Doherty, and the Honourable Arthur Boyer, of Montreal, who was also nominated by order in council, to represent this country. This was the first meeting of the General Assembly of the Institute since Canada had adhered to that organization.

The International Institute of Agriculture, with its permanent headquarters at Rome, was established as the result of a series of resolutions adopted at a conference of agricultural representatives assembled from all countries of the world, which conference was called in 1905 by His Majesty the King of Italy for the purpose of considering the establishment of an organization for the benefit of agriculture generally throughout the world. (See Appendix No. 19.)

Canada was not invited to send a representative to this first conference. The British Empire was represented by Lord Jersey, Lord Minto, Sir Thomas Elliott, permanent head of the Department of Agriculture in Great Britain, and several others. The resolutions of this first conference on which the organization of the Institute was based, were referred to the governments of the various countries represented, and each of these was asked whether they would adhere to the organization.

Some time elapsed before replies were received by the Government of Italy, but by the end of 1907 some thirty countries had agreed to the organization of the Institute.

In the meantime, in consequence of representations made by the British Government, invitations were extended by the King of Italy to the British dominions beyond the seas. Canada receiving such an invitation, agreed by an order in council, passed on March 20, 1907, to adhere to the Institute.

In the very beginning of 1908, the various countries which had agreed to adhere to the Institute, were invited to send representatives to attend a meeting held in Rome in May of that year. This was called a meeting of the Permanent Committee of the Institute, which committee was asked to formulate and complete an organization. Dr. J. G. Rutherford, V.S., H.A.R.C.V.S., Veterinary Director General and Live Stock Commissioner of Canada, was nominated as representative of the Dominion of Canada at that meeting.

The constitution and organization of the Institute was then discussed and almost completed. A second meeting of this Permanent Committee was held in November, 1908, when the draft of the constitution and organization was completed for submission to the meeting of the General Assembly. The General Assembly was to meet in November following, and to this meeting I went as the representative of the Dominion of Canada.

Dr. J. G. Rutherford attended the meeting of the Permanent Committee held in November, and was also named one of our representatives for the General Assembly held during that month. At this General Assembly, there was a very complete



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representation of the most important countries of the world. The Minister of Foreign Affairs of Italy presided, and welcomed the delegates on behalf of His Majesty the King, the government, and the people of Italy.

The constitution as formulated by the committee charged with drawing it up, was thoroughly discussed, slightly modified, and adopted as the permanent constitution of the International Institute of Agriculture. This constitution provides for the establishment in Rome of the offices of the Institute, and for the staff, which is to be drawn from the various countries represented. Machinery is provided for the collection of reports and statistics of agriculture from all the countries of the world, the object being to compile and co-ordinate these reports, and redistribute them in condensed and convenient form for the use of the various countries. Statistical work and the collection of information of all kinds in regard to agricultural development, invention and progress, are dealt with. The Institute is intended to be in a short phrase, an agricultural clearing house for the world, which will supply to each country full information as to what is going on in the others. (See Appendix No. 20.)

His Majesty the King of Italy has taken a keen interest in the organization of the Institute. He has presented it with the revenues of a large personal estate, which supplies in the neighbourhood of \$60,000 a year towards the expenses of the Institute. As these revenues were set aside for this purpose from the time of the meeting of the first conference, the accumulated proceeds for three years was utilized for the erection of a permanent home for the Institute. A splendid building with spacious offices, &c., has been erected in the Borghese Gardens just outside the Porta del Popolo of the city of Rome. In future these revenues accrue for the ordinary expenses of the Institute, which are otherwise defrayed by contributions from the various countries adhering. For this purpose and for the allotment of voting rights in the administration of the Institute, the countries are divided into five classes, I, II, III, IV, V. When Canada first adhered to the Institute, she elected to be placed in class IV, the contribution of which was 3,000 frs. (\$579).

In view, however, of the importance of agriculture in Canada, and to the position which our representatives were able to take in the meeting of the General Assembly, I recommended to my colleagues that Canada should be placed in the second class, the contribution of which is 12,000 frs. (\$2,316), which recommendation was agreed to and acted upon while I was in Rome attending the meeting of the General Assembly.

After the adoption of the constitution and organization by the General Assembly, the representatives proceeded to the election of officers for the ensuing year. Senor Titoni, former president, was reelected president, and accepted the position. In the election of first vice-president, His Excellency the Earl of Monts, German Ambassador and Chief of the German Legation, who represented that empire, proposed that the Minister of Agriculture for Canada should be elected to the position. This nomination was seconded by Mr. Griscom, American Ambassador in Italy, and was carried unanimously.

Mr. Yermoloff, the principal representative of the Empire of Russia, was elected second vice-president.



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The budget for the ensuing year was adopted, and the committee which had worked out the form of constitution was continued and made permanent.

In consequence of the fact that Dr. J. G. Rutherford was required in Canada in connection with the duties of his permanent work, the Honourable Arthur Boyer was asked to take his place, at all events for the present, on the Permanent Committee. He was so appointed by an order in council dated November 5, 1908. The General Assembly adjourned to meet again a year hence.

The Permanent Committee held its next meeting immediately on the adjournment of the General Assembly, and organized by the election of Count Faina, the representative of Italy, president; Mr. Dop, representative of France, as vice-president, and Messrs. Müeller, representative of Germany, Miklos, the representative of Hungary, and Boyer, the representative of Canada, as the Executive Committee, the three latter being chairmen of the three subdivisions of the committee. The Institute is now established on a permanent basis, and I am sure will accomplish a great work for the agricultural interests of the world.

The results, however, will not be immediate. It will take some time for the whole organization to get into thorough working order. The information and statistics which must be collected will be found of varied character and form, and it will be necessary to study and work out these for proper co-ordination and compilation so that the results may be redistributed in the manner to be of the fullest advantage to the different countries adhering.

The permanent officers of the Institute, chosen and appointed by the General Assembly, and the members of the Permanent Committee, have showed great enthusiasm and capacity for the work, which to my mind assures the success of the Institute.

When I left Canada to attend the meeting of the General Assembly, I was doubtful as to the results possible of accomplishment by an organization of this kind. I now am convinced that Canada may and will reap a great benefit from the establishment of this International Institute of Agriculture, and that not only will participating in it be profitable to us, but it will be of inestimable value for us to share in an international movement of so great importance to agriculture, which is our mainstay and greatest source of wealth.

I might add that at the meeting of the General Assembly held at Rome, I was very delighted to have the co-operation of Sir Thomas Elliott, permanent head of the Department of Agriculture in Great Britain, and to find that he had formed a high opinion of the work of the Institute, and was anxious to have Great Britain take a leading part in the organization and management of it.

India, Australia and New Zealand are also participating, and it is hoped and expected that South Africa will shortly adhere.

Interesting reports on the proceedings of the meetings of the International Institute of Agriculture by Dr. J. G. Rutherford and the Honourable Mr. Boyer are annexed as appendices hereto. (See Appendices Nos. 17 and 18.)



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During the past year Canada has participated in both the Franco-British Exhibition, held in London, England, and also in the Scottish National Exhibition, held in Edinburgh, Scotland, the former opening on May 14, 1908, and closing on October 31, 1908, and the latter opening on May 1, 1908, and closing on October 31, 1908.

A most creditable display of the Dominion's natural products and resources attracted much attention, and both exhibitions were marked with great success.

A report of these exhibitions by the Exhibition Commissioner will be found as an appendix hereto. (See Appendix No. 15.)

Since the closing of both the Franco-British and the Scottish National Exhibitions preparations are under way for Canada's participation in the Alaska-Yukon-Pacific Exhibition, which is to open in Seattle on June 1 next.

With deep regret I have to record the death of James Fletcher, LL.D., F.R.S.C., Dominion Entomologist and Botanist, on November 8, 1908. Doctor Fletcher's death is not only a loss to the department, which he served faithfully since the establishment of the Experimental Farms, but is one which will be felt throughout the Dominion.

I have also to report the death of an old and tried servant, Mr. A. C. Smith, M.D., M.A., C.M., who devoted years of his life to the care of the lepers at the leper lazaretto in Tracadie, N.B. Doctor Smith died on March 12, 1909.

I am pleased to be able to report that the prospects of the tobacco industry in Canada are bright and encouraging. Appended hereto is a report on the result of his labours submitted by the tobacco expert, Mr. F. Charlan, for the twelve months ended March 31, 1909. (See Appendix No. 16.)

## II.—ARTS AND AGRICULTURE.

### DAIRY AND COLD STORAGE COMMISSIONER'S BRANCH.

This branch of my department, which is administered by Mr. J. A. Ruddick as Dairy and Cold Storage Commissioner, includes the divisions of dairying, fruit, extension of markets and cold storage. Although there is a separate staff for each division, composed of officers with expert knowledge of the various lines of work, and these have assigned to them certain specific duties, there is, owing to the close relation in the work of the several divisions, much co-operation in carrying on the work as a whole, all of which promotes efficiency and economy.

The branch of the Dairy and Cold Storage Commissioner deals more particularly with the commercial side of the various industries which it touches, and is not equipped or provided with facilities for carrying on experimental work, although special arrangements are made from time to time, as may be required. The publications of the branch are written in popular form, and are not descriptive of experiments or investigations, as a rule.



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## THE ASSISTANT DAIRY COMMISSIONER.

The Assistant Dairy Commissioner, Mr. J. C. Chapais, devotes his time and energies largely to the French districts of the province of Quebec, and resides at St. Denis (en bas). Mr. Chapais attends a large number of meetings during the year, giving addresses on dairying, fruit growing and general agricultural topics. He has also assisted in the course of lectures at the St. Hyacinthe Dairy School, and visited, in company with the inspectors, a number of the cheese factory and creamery syndicates in the province of Quebec.

## MEETINGS ADDRESSED.

A very important part of the work of the staff of the Dairy and Cold Storage Commissioner's branch, especially in the winter months, consists of attending the conventions of the various agricultural associations and special farmers' meetings which are held in different parts of the country.

The Commissioner attended and gave addresses at the annual conventions of the Dairymen's Association of Eastern Ontario, the Dairymen's Association of Western Ontario, the Nova Scotia Farmers' and Dairymen's Association, the Manitoba Dairymen's Association, the Ontario Fruit Growers' Association and other minor meetings in various parts of Canada.

Members of the staff, including Messrs. A. McNeill, G. H. Barr, C. F. Whitley, J. N. Lemieux, W. W. Brown, P. J. Carey, G. H. Vroom, Jos. Burgess, J. G. Bouchard, I. Trudel and Harvey Mitchell, have been almost constantly engaged for several months in attending special meetings called for the promotion of cow testing; for the improved handling of milk for cheesemaking; and for the encouragement of spraying and better care of orchards, &c.

Extensive use has been made of lantern views to illustrate the various subjects presented to these meetings.

## ANNUAL REPORT OF THE BRANCH.

The Dairy and Cold Storage Commissioner has prepared the usual detailed report of the operations of his branch, which will be printed in a separate volume as an appendix to this report.

Further reference to this branch will be made under the head of the four divisions already mentioned.

## THE DAIRY DIVISION.

## THE SEASON OF 1908.

The season of 1908, like the preceding one, was marked by very dry weather and consequent shortage of pasture and scarcity of water in most of the principal dairying districts. The progressive farmers, however, profited by the lessons of 1907, and planted a larger acreage of fodder corn. The crop was an excellent one, and conse-



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quently there has not been such a scarcity of feed during the past winter as there was in 1907-8.

The high prices obtained for cheese during the season was some compensation for the shortage in milk production. The price of cheese continues to be relatively higher than the price of butter, and the result is that a large amount of milk is being turned into cheese which would otherwise be sent to the creameries.

#### THE SHIPPING OF GREEN CHEESE.

British importers still complain of the shipments of cheese in an immature condition. The lower temperature at which cheese are now carried by rail and water, as compared with former years, has the effect of retarding the ripening process to some extent, and makes it all the more imperative that a reasonable time should be allowed before they are placed in the hands of consumers. The Dairy and Cold Storage Commissioner has used every means in his power to persuade the dairymen to put a stop to a practice which constitutes so serious a menace to the cheese trade.

#### NEW ZEALAND COMPETITION.

While the imports of cheese from Canada into Great Britain have shown some decrease in recent years, those from New Zealand have shown a large percentage increase. It is estimated that the imports from New Zealand for the season of 1908-9 will amount to about 16,000 tons, or probably 450,000 boxes, which is about twice the quantity received from that country in 1906-7.

#### CONVICTIONS FOR VIOLATIONS OF DOMINION DAIRY LAWS.

During the year under review, Chas. Dumais, Montreal, was fined for carrying on the illegal manufacture of a butter substitute resembling oleomargarine.

The Montreal Dairy Company, Montreal; Wm. Duckworth and J. Lyons, Toronto; and Samuel Duckworth, Grand Valley, Ontario, were fined for selling dairy butter branded as 'creamery.'

#### OFFICIAL REFEREE OF BUTTER AND CHEESE.

An officer of the Dairying Division was stationed at Montreal during the season of 1908 as Acting Official Referee of Butter and Cheese. It was his business to examine and report on any lots of cheese or butter over which there was a dispute as to quality between buyer and seller. During the whole season he was requested to examine only 115 lots of cheese and 40 lots of butter. In view of the small demand for the services of this officer, it does not seem necessary to assign any one to this duty in the future.

#### COW TESTING ASSOCIATIONS.

During the year 1908 there were 87 cow testing associations in operation in Canada, all of which have been organized by the Dairy Division. These associations



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had 751 members, and 7,243 cows were entered to be recorded. In addition to these associations a large number of dairymen who are not in a position to join an association are keeping records individually. Many of them are weighing the milk from each cow daily. Record forms are supplied free of cost on application to the Dairy and Cold Storage Commissioner, Ottawa.

An extension of the work is contemplated for 1909, by supplying record forms to farmers who wish to record the quantity and value of feed consumed by each cow.

EXPERIMENTS IN THE CARE OF MILK FOR CHEESEMAKING.

A series of experiments, the results of which would appear to have a very important bearing on the handling of milk intended for cheesemaking, were conducted during the year.

PLANS AND SPECIFICATIONS FOR CHEESE FACTORIES AND CREAMERIES.

The Dairy and Cold Storage Commissioner furnishes, free of cost, complete plans and specifications for cheese factories and creameries.

DOMINION OF CANADA—EXPORTS OF DAIRY PRODUCTS—HOME PRODUCTION.  
CHEESE.

| Year ended<br>June 30. | Quantity.   | Value.     | To<br>Great<br>Britain. | To<br>United<br>States. | To<br>France. | To<br>Ger-<br>many. | Other<br>European<br>Coun-<br>tries. | E. N. A.<br>Prov-<br>inces. | British<br>Indies. |
|------------------------|-------------|------------|-------------------------|-------------------------|---------------|---------------------|--------------------------------------|-----------------------------|--------------------|
|                        | Lbs.        | \$         | \$                      | \$                      | \$            | \$                  | \$                                   | \$                          | \$                 |
| 1868. ....             | 6,141,570   | 629,743    | 518,574                 | 68,784                  |               |                     | 84                                   | 1,594                       | 340                |
| 1880. ....             | 40,368,678  | 3,893,366  | 3,772,769               | 114,507                 |               |                     | 170                                  | 5,710                       | 210                |
| 1890. ....             | 91,260,187  | 9,372,212  | 9,349,731               | 6,425                   |               | 370                 | 2,154                                | 12,777                      | 755                |
| 1891. ....             | 106,202,140 | 9,508,800  | 9,481,373               | 13,485                  |               |                     | 1,954                                | 9,104                       | 3,884              |
| 1892. ....             | 118,270,052 | 11,652,412 | 11,593,690              | 39,758                  | 2             |                     | 2,124                                | 12,942                      | 4,091              |
| 1893. ....             | 133,946,365 | 13,407,470 | 13,369,237              | 23,578                  |               |                     | 2,689                                | 18,679                      | 2,297              |
| 1894. ....             | 154,977,480 | 15,188,191 | 15,159,128              | 9,552                   |               | 173                 | 3,036                                | 21,948                      | 14,284             |
| 1895. ....             | 146,004,650 | 14,253,002 | 14,229,505              | 5,058                   |               | 16                  | 5,463                                | 9,785                       | 12,175             |
| 1896. ....             | 164,689,123 | 13,956,571 | 13,924,672              | 10,359                  | 299           |                     | 4,861                                | 7,509                       | 8,871              |
| 1897. ....             | 164,220,699 | 14,676,239 | 14,645,820              | 4,486                   | 94            | 24                  | 5,355                                | 11,951                      | 8,447              |
| 1898. ....             | 196,703,323 | 17,572,763 | 17,522,681              | 14,604                  |               | 1,428               | 6,889                                | 12,784                      | 14,377             |
| 1899. ....             | 189,827,839 | 16,776,765 | 16,718,418              | 17,739                  |               |                     | 11,701                               | 13,293                      | 15,614             |
| 1900. ....             | 185,984,430 | 19,856,324 | 19,812,670              | 4,836                   |               |                     | 8,774                                | 16,651                      | 13,393             |
| 1901. ....             | 195,926,397 | 20,696,951 | 20,609,361              | 37,601                  | 465           | 12                  | 15,375                               | 16,603                      | 17,534             |
| 1902. ....             | 200,916,401 | 19,686,281 | 19,620,239              | 12,038                  |               | 1,179               | 14,133                               | 20,100                      | 18,602             |
| 1903. ....             | 229,099,925 | 24,712,913 | 24,620,004              | 7,779                   |               | 170                 | 18,942                               | 21,334                      | 44,714             |
| 1904. ....             | 233,980,716 | 24,184,566 | 24,099,004              | 5,386                   | 44            |                     | 23,810                               | 21,754                      | 34,568             |
| 1905. ....             | 215,733,259 | 20,300,500 | 20,174,211              | 14,182                  | 700           | 364                 | 39,696                               | 35,171                      | 36,176             |
| 1906. ....             | 215,834,543 | 24,433,169 | 24,300,908              | 16,082                  | 7,203         |                     | 52,155                               | 36,902                      | 25,529             |
| Ended<br>March 31.     |             |            |                         |                         |               |                     |                                      |                             |                    |
| *1907. ....            | 178,141,567 | 22,006,584 | 21,909,879              | 6,900                   |               | 54                  | 38,337                               | 37,748                      | 13,666             |
| 1908. ....             | 189,710,463 | 22,887,237 | 22,763,736              | 17,732                  | 10            | 3                   | 42,431                               | 35,792                      | 27,533             |
| 1909. ....             | 164,907,139 | 20,384,666 | 20,268,166              | 19,428                  | 81            |                     | 28,888                               | 41,163                      | 26,940             |

\* 9 months.



BUTTER.

| Year ended<br>June 30. | Quantity.  | Value.    | To<br>Great<br>Britain. | To<br>United<br>States. | To<br>France. | To<br>Ger-<br>many. | Other<br>Foreign<br>Coun-<br>tries. | B. N. A.<br>Prov-<br>inces. | British<br>Indies. |
|------------------------|------------|-----------|-------------------------|-------------------------|---------------|---------------------|-------------------------------------|-----------------------------|--------------------|
|                        | Lbs.       | \$        | \$                      | \$                      | \$            | \$                  | \$                                  | \$                          | \$                 |
| 1888.                  | 10,649,733 | 1,698,042 | 534,707                 | 1,015,702               | .....         | 1,496               | 14,870                              | 95,777                      | 26,986             |
| 1889.                  | 18,535,362 | 3,058,069 | 2,756,064               | 111,158                 | .....         | .....               | 24,710                              | 163,290                     | 2,647              |
| 1890.                  | 1,951,585  | 340,131   | 184,105                 | 5,059                   | .....         | .....               | 29,342                              | 119,989                     | 1,636              |
| 1891.                  | 3,768,101  | 602,175   | 440,060                 | 10,054                  | .....         | 20,447              | 24,021                              | 101,649                     | 5,944              |
| 1892.                  | 5,736,696  | 1,056,058 | 877,455                 | 6,038                   | .....         | 5,160               | 27,207                              | 133,770                     | 6,428              |
| 1893.                  | 7,036,013  | 1,296,814 | 1,118,614               | 7,539                   | .....         | 1,175               | 35,042                              | 127,412                     | 7,032              |
| 1894.                  | 5,534,621  | 1,095,588 | 936,422                 | 6,048                   | 1,125         | .....               | 25,560                              | 109,263                     | 14,170             |
| 1895.                  | 3,650,258  | 697,476   | 536,797                 | 5,365                   | .....         | 267                 | 35,028                              | 108,439                     | 11,580             |
| 1896.                  | 5,889,241  | 1,052,089 | 893,053                 | 2,729                   | .....         | 9,370               | 34,299                              | 105,472                     | 7,166              |
| 1897.                  | 11,453,351 | 2,089,173 | 1,912,389               | 6,233                   | .....         | 8,513               | 33,490                              | 115,754                     | 12,794             |
| 1898.                  | 11,253,787 | 2,046,686 | 1,915,550               | 3,738                   | .....         | 17,574              | 31,619                              | 51,045                      | 27,160             |
| 1899.                  | 20,139,195 | 3,700,873 | 3,526,007               | 3,984                   | .....         | 12,384              | 41,810                              | 74,813                      | 41,875             |
| 1900.                  | 25,259,737 | 5,122,156 | 4,947,000               | 5,044                   | .....         | 7,210               | 43,176                              | 66,069                      | 53,657             |
| 1901.                  | 16,335,528 | 3,295,663 | 3,142,353               | 5,839                   | .....         | .....               | 39,675                              | 44,586                      | 62,810             |
| 1902.                  | 27,855,978 | 5,660,541 | 5,459,300               | 41,149                  | .....         | 101                 | 36,109                              | 47,066                      | 71,816             |
| 1903.                  | 34,128,944 | 6,954,618 | 6,554,014               | 10,225                  | .....         | 13                  | 198,381                             | 69,017                      | 112,968            |
| 1904.                  | 24,568,001 | 1,724,155 | 1,400,774               | 6,497                   | 14            | 25,644              | 75,014                              | 88,422                      | 127,790            |
| 1905.                  | 31,764,303 | 5,930,379 | 5,568,999               | 70,580                  | 14,440        | .....               | 113,650                             | 82,387                      | 80,323             |
| 1906.                  | 34,031,525 | 7,075,539 | 6,802,003               | 33,965                  | 4,155         | .....               | 100,648                             | 48,283                      | 87,085             |
| Ended<br>March 31.     |            |           |                         |                         |               |                     |                                     |                             |                    |
| *1907.                 | 18,073,508 | 4,011,609 | 3,805,925               | 3,539                   | .....         | .....               | 86,316                              | 56,516                      | 59,313             |
| 1908.                  | 4,786,954  | 1,068,703 | 823,761                 | 38,899                  | .....         | .....               | 85,741                              | 34,931                      | 85,371             |
| 1909.                  | 6,326,355  | 1,521,436 | 1,273,484               | 18,246                  | .....         | .....               | 79,784                              | 54,552                      | 95,370             |

\* 9 months.

EXTENSION OF MARKETS DIVISION.

This division is charged with the supervision of the inspection services, which have been organized with a view of improving the handling of Canadian food products, of securing proper temperatures for the safe carriage of these goods, and that delays in transit may be reduced to a minimum.

This division also furnishes Canadian exporters with information relating to outside markets, and brings foreign buyers into direct communication with shippers on this side.

INSPECTORS IN CANADA.

During the season from May to November the following inspectors were employed:—

Six cargo inspectors at Montreal who watched the handling of perishable freight as it was unloaded from the cars and loaded into the steamships, tested the temperatures of the butter before it was placed in the cold storage chambers on the ships, and placed thermographs in the different chambers and holds.

Three iced-car inspectors at Montreal, who reported the condition of the refrigerator cars which arrived at the railway terminals with butter, took temperatures of the butter and saw that it was carefully handled and quickly distributed.



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Three travelling inspectors, who looked after the iced cars in the provinces of Ontario and Quebec, tested the temperature of the butter at the various shipping stations, and investigated any complaints regarding the service.

During the winter months, one of the Montreal cargo inspectors was transferred to the port of Halifax to supervise the loading of apples, and to install thermographs in the fruit-carrying steamers.

## INSPECTORS IN GREAT BRITAIN.

In Great Britain five cargo inspectors were employed during the whole year to watch the discharge and report on the condition of Canadian perishable products at the ports of Liverpool, Manchester, London, Bristol and Glasgow. These inspectors also interviewed, from time to time, the importers of cheese, butter, fruit, &c., on matters affecting the trade in these products.

## BENEFICIAL RESULTS OF CARGO INSPECTION.

It is now about seven years since this system of cargo inspection at ports in Canada and in Great Britain was inaugurated. During that time very considerable improvement has been brought about in the method of handling perishable freight, both in loading into the steamers and discharging therefrom. The presence of an inspector, who is constantly on the lookout to detect improper handling, has gradually effected a very decided reform, not only as regards the appliances used by the stevedores, but also as regards the actual handling of the packages by the men themselves. Cheese, for instance, are handled much more carefully than under the old conditions, and even with the much weaker box now in use it is unusual to see more than ten per cent of breakage among boxes when unloaded at ports in Great Britain. This applies to shipments from Montreal only, as during the winter season, when Canadian cheese is shipped via the ports of St. John and Portland, the breakage is greatly increased, averaging from 25 to 45 per cent, including the boxes that are coopered by the steamship companies. At Portland, in particular, where cargo inspectors have never been employed, cheese, apples and other perishable goods are handled much more roughly than they are at the port of Montreal.

The presence of government cargo inspectors on the docks has been of especial benefit to fruit shippers, this being recognized not only by Canadian shippers but by United States shippers as well. Last season a member of one of the large fruit-exporting firms located in Lockport, N.Y., paid a visit to the port of Montreal, and after looking into the facilities there he stated that in view of the system of cargo inspection in vogue, and the fact that through the placing of thermographs in the chambers and holds with the fruit it was possible to obtain a record of the temperature throughout the voyage, their firm would in future route their export shipments via Montreal, although the haul would be considerably longer than to their nearest United States port.

It may not be out of place to close this reference to the improvement in transportation facilities by quoting a paragraph from a letter received from Messrs. Frank R. Hamilton & Company, Liverpool, dated January 19, 1909, which reads as follows:—



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‘On the whole the transportation conditions to-day are tremendously ahead of what they were some years ago, and in consequence better results are obtained when the goods are sold on the British markets.’

THE FRUIT DIVISION.

The work of this Division of the Dairy and Cold Storage Branch should not be confused with the Horticultural Division of the Experimental Farms Branch. The following paragraphs will indicate the nature of the work which is undertaken, and it will be observed that it is almost wholly commercial in character.

THE SEASON OF 1908.

The fruit season of 1908 presented little departure from normal in weather, market or crop conditions. Early and fall apples were much more plentiful relatively than winter. The hot weather of September and October caused a serious deterioration in condition, but for the whole season the quality was good; and in consequence the number of prosecutions under the Inspection and Sale Act was less than in 1907. Prices were below the average at the beginning of the season, but were high towards the end.

FRUIT CROP REPORT.

This division continues to publish a Fruit Crop Report regularly at the end of each month during the fruit season. Every precaution is taken to secure accurate information from which to compile the report. Several thousand correspondents send in returns of the crop and crop prospects in the various fruit districts.

FRUIT INSPECTION.

The staff of fruit inspectors was increased during the year, and consisted of 9 permanent and 12 temporary inspectors.

STATISTICS OF FRUIT INSPECTION FOR THE YEAR ENDED MARCH 31, 1909.

| Variety.            | No. of lots inspected. | No. of packages in lots inspected. | No. of packages inspected. |
|---------------------|------------------------|------------------------------------|----------------------------|
| Apples ..... Brls.  | 5,940                  | 682,657                            | 42,223                     |
| Apples ..... Boxes. | 248                    | 100,729                            | 2,701                      |
| Pears.....          | 88                     | 54,150                             | 7,924                      |
| Peaches.....        | 91                     | 140,976                            | 16,005                     |
| Plums .....         | 54                     | 16,505                             | 1,474                      |
| Tomatoes.....       | 53                     | 11,381                             | 779                        |
| Early fruits.....   | 863                    | * 1,184,651                        | 154,874                    |
| Total .....         | 7,337                  | 2,191,049                          | 225,980                    |

\* A crate of berries is counted as one package.



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## CONVICTIONS UNDER THE INSPECTION AND SALE ACT, SEASON 1908-09.

|                       |    |
|-----------------------|----|
| Ontario.. . . . .     | 45 |
| Nova Scotia.. . . . . | 31 |
| Quebec.. . . . .      | 2  |
| <hr/>                 |    |
| Total.. . . . .       | 78 |

The permanent fruit inspectors are employed during the period when there is no fruit to inspect, in addressing orchard and other fruit meetings, giving instruction in spraying, &c.

## COLD STORAGE DIVISION.

## CREAMERY COLD STORAGE BONUS.

The number of bonuses paid during the year was 18. The bonus (\$100) is paid to owners of creameries who erect a cold storage in connection with their creameries according to plans furnished on application to the Dairy and Cold Storage Commissioner.

## ICED BUTTER CAR SERVICES.

This service was extended and rearranged for the season of 1908. There were in all 62 routes in operation from May 11 to October 17, inclusive.

## ICED CHEESE CARS.

Arrangements were again made with the railway companies to supply a limited number of iced cars on demand of shippers for the carriage of cheese in carloads, the Department of Agriculture to pay the icing charges to the extent of \$5 per car. Nearly 1,200 cars were supplied under this agreement between July 6 and September 12.

## ICED CARS FOR FRUIT.

A similar arrangement was made for the furnishing of iced cars for the carriage of fruit intended for export in cold storage.

## COLD STORAGE CHAMBERS RESERVED FOR FRUIT ON STEAMSHIPS.

The Dairy and Cold Storage Commissioner was authorized to arrange for the reservation of cold storage chambers on four London steamers for the carriage of tender fruits at suitable temperatures, the Department of Agriculture to be responsible for any 'dead' space. The chambers were all filled and there has been no claim on the department.

## THERMOGRAPHS.

The total number of thermograph records secured on steamers sailing from Montreal and Quebec was 444, including two to South Africa. On steamers sailing from



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Halifax and Portland there were 33 records secured, including one to South Africa. There were also two records from steamers carrying apples from Vancouver to Australia, making a grand total of 479 for the year.

#### SUBSIDIES FOR COLD STORAGE WAREHOUSES.

Contracts were entered into during the year under the provisions of the Cold Storage Act for the erection of cold storage warehouses at the following places:—

Port Hawkesbury, N.S.

Woodstock, N.B.

Peterboro, Ont.

St. Mary's, Ont.

Trenton, Ont.

The warehouses have been completed at the first three named places. Several other applications for the subsidy have been received and are now under consideration.

#### SEED COMMISSIONER'S BRANCH.

An important feature of the work of the Seed Branch is to secure all possible information as to the suitability of the various crops for seeding purposes. This is done by the personal inspection work of the district officers located in the various provinces, and by testing samples of seed that are sent to the seed laboratories by farmers and others interested in crop production.

It will be remembered that in 1907 the crops in some parts of the prairie provinces were seriously injured by early fall frosts. Through the work of the Seed Branch officers in inspecting the infected areas and having large numbers of samples sent to the seed laboratory for germination test, the extent and seriousness of the injury was ascertained. The results of investigation into the seed supply of western Canada during the winter of 1908-9 furnished conclusive evidence that there was very little injury to the crop by frost, and that there would be an abundant supply of satisfactory seed. In a few local districts the vitality of oats and barley was somewhat impaired, but these areas were not extensive, and plenty of good seed could be secured near at hand.

#### THE QUALITY OF SEED GRAIN DISTRIBUTED BY THE GOVERNMENT.

In order to determine accurately the quality of the seed grain supplied to the needy farmers of Saskatchewan and Alberta in the spring of 1908, a purity analysis was made by the Seed Branch of the recleaned samples which were taken as the cars were being loaded out. Germination tests were also made of the recleaned oat samples. The results show that out of the 545 samples of wheat analysed, nearly all representing full car lots, 149, or 27 per cent, were entirely free from the noxious



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weeds mentioned in section 6 of the Seed Control Act; 167 lots, or 31 per cent, while not entirely free from noxious seeds, contained not more than one per pound; 165 lots, or 30 per cent, contained more than one noxious weed seed per pound but not more than five; while 64 lots, or 12 per cent, contained more than five noxious weed seeds per pound. All the wheat distributed had to be selected from commercial grain, but after recleaning, 58 per cent of it was of such quality that it could have been sold as seedsmen's stock under the Seed Control Act.

Of the oats distributed, those purchased in western Canada were by far the most badly contaminated with weed seeds, which fact alone more than justifies the action of the government in seeking outside supplies of seed against the strong protest of interested parties. Of the 201 lots of western oats analysed, 8 per cent were free from noxious weeds, 8 per cent contained not more than one per pound, 32 per cent contained over one but not more than five per pound, while 52 per cent contained over five noxious weed seeds per pound. Of the 61 lots of Prince Edward Island oats examined, 77 per cent were entirely free from noxious weed seeds, and, with the exception of two cars, all the rest contained not more than one per pound. Of the 200 samples of re-cleaned British oats, 28 per cent were entirely free from noxious weed seeds, 42½ per cent contained not more than one per pound, while 29¼ per cent contained more than one wild oat per pound but not more than five.

Of the 40 lots of barley analysed, one was entirely free from noxious weed seeds, 13 contained not more than one per pound, 22 more than one but not more than five per pound, and 4 more than five per pound.

The average germination of the western oats cleaned at Winnipeg elevators was 88 per cent, only seven cars going below 70 per cent. The cars cleaned at Brandon averaged 85 per cent, with four cars below 70 per cent. The six cars cleaned at Regina averaged 85 per cent, the lowest being 81 per cent. The 24 cars distributed from Calgary averaged 86 per cent, with only one below 70 per cent. All of the Ontario, Prince Edward Island and British oats gave strong germination, the average being about 90 per cent.

## THE SEED TRADE OF 1909.

The clover seed crop of the seed-producing sections of Canada was considerably injured in 1908 by the attack of the clover seed midge. The crop was also rather uneven, which allowed considerable weed growth and affected the purity of the seed considerably. Inspection work in the spring of 1909 showed that a large proportion of the red clover seed put on the market was United States grown seed. This stock lacks somewhat in colour compared with the best Ontario grown seed, and in some cases it is scarcely as plump. The chief weed seed impurities in red clover, which is being offered this year, are ragweed and buckhorn. Ragweed is spreading rapidly in the southwestern portion of Ontario. On the whole, the supply of alsike seed is not as pure as that of red clover. There seems to be great difficulty in procuring alsike seed free from the seeds of night-flowering catchfly, which is spreading rapidly in the seed-producing areas.



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A feature of the seed trade which is receiving special attention this spring, is the distribution for seed of commercial oats and wheat badly contaminated with wild oats and other weed seeds. This practice is quite prevalent in northern Ontario, Quebec and the St. John river valley. Many of the weed seeds contained in this grain are unknown to the farmers, and their noxious nature is not recognized. Every effort will be made by the seed inspectors this season to suppress the evils of this trade as far as possible.

Reports from the seed inspectors indicate that for the most part the seed dealers of Canada are desirous of complying with the provisions of the Seed Control Act and selling as pure seed as they can secure. This is evidenced by the fact that during the past year 109 reference collections of weed seeds were sold to the seed merchants. This makes a total of 583 collections distributed from this department.

#### FIELD CROP COMPETITIONS AND SEED FAIRS.

During the past season the work of conducting competitions in standing fields of seed grain and seed fairs in co-operation with the provincial authorities has been continued and enlarged upon. There were 22 field grain competitions held in Alberta, 51 in Saskatchewan, 46 in Ontario, 18 in Quebec and 3 in Prince Edward Island. Wherever carried on, these competitions have been very popular, not only because of their educational influence but also for their commercial value. They have done much to stimulate interest in the production of pure seed grain, and have also provided information as to where high-class seed grain can be procured.

During the winter and spring months seed fairs were held in Saskatchewan and Alberta and in the eastern provinces. In the west the seed fair is one of the most popular institutions among the farmers. There were 42 held in Saskatchewan and 22 in Alberta. The exhibits at these fairs represented over 167,000 bushels of wheat, oats and barley that was commendable for seed purposes. In Saskatchewan the exhibits represented 107,800 bushels of cereals, an average of 2,566 bushels for each seed fair. The average amount of wheat represented by the exhibits at Saskatchewan seed fairs was 1,277; oats, 1,085, and barley, 203 bushels. The 23 fairs in Alberta represented 59,210 bushels, an average of 2,575 for each seed fair. The average for wheat was 708; oats, 1,518, and barley, 350 bushels. In the west the fairs were all completed by the first of February so as to allow more time for the exchange of seeds. In Ontario, Quebec and the maritime provinces they are generally held somewhat later.

#### ASSISTANCE TO THE CANADIAN SEED GROWERS' ASSOCIATION AND GENERAL EDUCATIONAL WORK.

The usual assistance to the Canadian Seed Growers' Association has been given by way of printing the annual report, inspecting the seed plots of the members of the association, and providing a grant for its general expenses. Much of the time of the Seed Branch district officers is devoted to general educational work, generally in co-operation with the provincial departments of agriculture. At the meetings which are conducted, special attention is given to the question of seed production in its various phases, including the identification and extermination of weeds. Educational meetings are held in connection with the seed fairs. Lectures are given on questions relating to grain production, and seed grain judging classes are held.



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## PUBLICATIONS.

Up to the beginning of March, 1909, 18,600 copies of the bulletin, 'Farm Weeds of Canada' were distributed. Of these, 14,974 were sent to general educational institutions, including rural schools. The balance was sent to agricultural colleges, public libraries, farmers' institute lecturers and agricultural organizations. There are still about 5,000 copies to be distributed, and these will all be taken by schools yet to be supplied.

There has been a constant demand for this bulletin from individuals, and in order to meet it a new and enlarged edition is being prepared. This edition will be held for sale at nominal cost by the Superintendent of Stationery, and will be available to farmers and others.

During the year the following publications have been issued:—

A circular dealing with the production of clover seed, distributed to the farmers in the seed-producing areas.

Summary of Results of Field Crop Competitions in Ontario, Quebec and Prince Edward Island; 40,000 copies English, 10,000 French.

Summary of Results of Field Competitions in Saskatchewan and Alberta; 20,000 copies.

Summary of Particulars regarding Seed Exhibits at Seed Fairs in Saskatchewan and Alberta; 20,000 copies.

These bulletins contain valuable information regarding the production and supply of high-class seed grain.

## OTTAWA SEED LABORATORY.

There has been a general increase in the number of samples analyzed for purity. The germination tests were not so numerous as in the previous season, during which a large number of samples of frosted grain were received for test from the prairie provinces. The following tabulated forms give the kinds and numbers of samples received from farmers and seed merchants, and tested for germination or purity at the Ottawa seed laboratory, from April 1, 1908, to March 31, 1909:—

## GRAIN TESTED FOR GERMINATION

| Kind of Seed.  | Ontario. | Quebec. | Nova Scotia. | P. E. Island. | Manitoba. | Saskatchewan. | Alberta. | United States. | Total. |
|--|----------|---------|--------------|---------------|-----------|---------------|----------|----------------|--------|
| Wheat. . . . .   | 1        | 26      | ...          | ...           | 22        | 326           | 25       | ...            | 400    |
| Oats. . . . .  | 23       | 163     | 1            | 8             | 26        | 362           | 55       | 1              | 639    |
| Barley. . . . .  | 5        | 8       | ...          | ...           | 10        | 99            | 17       | ...            | 139    |
| Corn . . . . .   | 29       | 19      | ...          | ...           | ...       | ...           | ...      | ...            | 48     |
| Buckwheat . . . . .  | ...      | 2       | ...          | ...           | ...       | ...           | ...      | ...            | 2      |
| Oats and barley . . . . .  | ...      | 1       | ...          | ...           | ...       | ...           | ...      | ...            | 1      |
|  | 58       | 219     | 1            | 8             | 58        | 787           | 97       | 1              | 1,229  |
| Oats in connection with Government seed grain distribution . . . . . |          |         |              |               |           |               |          |                | 477    |
|  |          |         |              |               |           |               |          |                | 1,706  |



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GRAIN TESTED FOR PURITY.

| Kind of Seed.   | Ontario. | Quebec. | British Columbia. | Manitoba. | Saskatchewan. | Total. |
|-----------------|----------|---------|-------------------|-----------|---------------|--------|
| Wheat.....      | 1        | 14      | .....             | 2         | 8             | 25     |
| Oats. ....      | 4        | 62      | 1                 | 1         | 6             | 74     |
| Barley. ....    | 1        | 4       | .....             | .....     | .....         | 5      |
| Buckwheat. .... | .....    | 2       | .....             | .....     | .....         | 2      |
| Total . . . . . | 6        | 82      | 1                 | 3         | 14            | 106    |

CLOVER SEED AND TIMOTHY TESTED FOR GERMINATION.

| Kind of Seed.     | Ontario. | Quebec. | New Brunswick. | P. E. Island. | Manitoba. | Saskatchewan. | Alberta. | United States. | Total. |
|-------------------|----------|---------|----------------|---------------|-----------|---------------|----------|----------------|--------|
| Red Clover.....   | 30       | 27      | .....          | 16            | .....     | .....         | .....    | 4              | 77     |
| Alsike .....      | 16       | 6       | .....          | 10            | .....     | .....         | .....    | .....          | 32     |
| Timothy.....      | 15       | 22      | 1              | 18            | 1         | 3             | 1        | 6              | 67     |
| Alfalfa.....      | 14       | 1       | .....          | .....         | .....     | .....         | .....    | .....          | 15     |
| White Clover..... | 1        | 2       | ..             | 1             | .....     | .....         | .....    | .....          | 4      |
| Total ....        | 76       | 58      | 1              | 45            | 1         | 3             | 1        | 10             | 195    |

CLOVER SEED AND TIMOTHY TESTED FOR PURITY.

| Kind of Seed.      | Ontario. | Quebec. | New Brunswick. | P. E. Island. | British Columbia. | Manitoba. | Saskatchewan. | United States. | Total. |
|--------------------|----------|---------|----------------|---------------|-------------------|-----------|---------------|----------------|--------|
| Red Clover.....    | 417      | 218     | 6              | 22            | 3                 | .....     | .....         | 6              | 672    |
| Alsike.....        | 302      | 132     | 3              | 14            | 1                 | .....     | 2             | .....          | 454    |
| Timothy.....       | 235      | 224     | 7              | 27            | 2                 | 2         | 3             | 13             | 513    |
| Alfalfa.....       | 55       | 3       | .....          | .....         | .....             | .....     | .....         | .....          | 58     |
| White Clover. .... | 12       | 52      | .....          | 2             | .....             | .....     | .....         | .....          | 66     |
| Mixtures.....      | 14       | 4       | ..             | .....         | ...               | .....     | .....         | .....          | 18     |
| Total ..           | 1,035    | 633     | 16             | 65            | 6                 | 2         | 5             | 19             | 1,781  |



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## GRASSES TESTED FOR GERMINATION.

| Kind of Seed.     | Ontario. | Quebec | British Columbia | Manitoba | Saskatchewan | Alberta | United States | Total. |
|-------------------|----------|--------|------------------|----------|--------------|---------|---------------|--------|
| Brome Grass       | 1        |        |                  |          | 3            |         |               | 4      |
| Blue Grasses      | 6        | 1      | 1                |          |              | 1       | 3             | 12     |
| Red Top           | 9        |        |                  |          |              |         | 1             | 10     |
| Fescues           | 10       |        |                  |          |              |         |               | 10     |
| Western Rye Grass |          |        |                  | 2        | 6            |         |               | 8      |
| English           | 2        |        | 1                |          |              |         |               | 3      |
| Italian           |          |        | 1                |          |              |         |               | 1      |
| Orchard Grass     | 2        |        | 2                |          |              |         |               | 4      |
| Crested Dogstail  | 3        |        |                  |          |              |         |               | 3      |
| Oat Grass         | 1        |        |                  |          |              |         |               | 1      |
| Millet            |          |        | 1                |          |              |         |               | 1      |
| Total             | 34       | 1      | 3                | 2        | 9            | 1       | 4             | 54     |

## GRASSES TESTED FOR PURITY

| Kind of Seed.     | Ontario | British Columbia | United States | Total. |
|-------------------|---------|------------------|---------------|--------|
| Blue Grasses      | 7       | 1                |               | 8      |
| Red Top           | 3       |                  |               | 3      |
| Fescues           | 6       |                  |               | 6      |
| English Rye Grass | 1       | 1                |               | 2      |
| Italian           |         | 1                | 4             | 5      |
| Orchard Grass     | 1       | 2                |               | 3      |
| Crested Dogstail  | 2       |                  |               | 2      |
| Millet            |         |                  | 3             | 3      |
| Lawn Grass        | 5       |                  |               | 5      |
| Total             | 32      | 5                | 7             | 44     |

## OTHER SAMPLES TESTED FOR GERMINATION.

| Kind of Seed. | Ontario. | Quebec | British Columbia | Manitoba | Saskatchewan | Alberta. | Total. |
|---------------|----------|--------|------------------|----------|--------------|----------|--------|
| Roots         | 55       | 5      |                  | 4        |              |          | 64     |
| Vegetables    | 533      | 55     | 4                | 67       | 2            |          | 661    |
| Flower seeds  |          | 1      |                  | 5        |              |          | 6      |
| Flax seed     | 11       |        |                  |          | 24           | 2        | 37     |
| Rape          | 1        |        |                  |          |              |          | 1      |
| Chicory       | 4        |        |                  |          |              |          | 4      |
| Tobacco       | 47       |        |                  |          |              |          | 47     |
| Herbs         | 18       |        |                  |          |              |          | 18     |
| Total         | 669      | 61     | 4                | 76       | 26           | 2        | 838    |



CALGARY SEED LABORATORY.

Considerable time has been devoted by the staff of the Calgary seed laboratory in collecting and mounting specimens of plants common to the prairie provinces, and also collecting weed seeds for the reference collection. Seventy-five specimens of plants were collected and 125 new varieties of weed seeds added to the collection, which now totals 500. The germination work was considerably lighter than during the previous season, owing to there being very little damage to the crop by frost, but there was a considerable increase in the number of samples received for purity test, which indicates that the farmers of the west are beginning to realize more fully the importance of having a proper knowledge of the weed seed impurities which are found in clover and grass seed and seed grain. Fifty-one different weed seeds were found in the samples analysed for purity. The following tables show the number and kinds of samples tested for purity and germination at the Calgary seed laboratory from April 1, 1908, to March 31, 1909.

SAMPLES TESTED FOR PURITY.

| Kind of Seed.                 | Alberta. | Saskatchewan. | British Columbia. | Manitoba. | Total. |
|-------------------------------|----------|---------------|-------------------|-----------|--------|
| Oats . . . . .                | 43       | 9             | .. . . .          | .. .      | 52     |
| Wheat . . . . .               | 9        | 1             | .. . . .          | 1         | 11     |
| Barley . . . . .              | 7        | .. . . .      | .. . . .          | .. . . .  | 7      |
| Flax . . . . .                | 1        | .. . . .      | .. . . .          | .. . . .  | 1      |
| Timothy . . . . .             | 22       | .. . . .      | 12                | .. . . .  | 34     |
| Mammoth red clover . . . . .  | .. . . . | .. . . .      | 9                 | .. . . .  | 9      |
| Red clover . . . . .          | 1        | .. . . .      | 11                | .. . . .  | 12     |
| Alsike . . . . .              | .. . . . | .. . . .      | 8                 | .. . . .  | 8      |
| White clover . . . . .        | 2        | .. . . .      | 3                 | .. . . .  | 5      |
| Alfalfa . . . . .             | 4        | .. . . .      | 3                 | .. . . .  | 7      |
| Red Top . . . . .             | .. . . . | .. . . .      | 1                 | .. . . .  | 1      |
| Perennial rye grass . . . . . | .. . . . | .. . . .      | 1                 | .. . . .  | 1      |
| Italian " . . . . .           | .. . . . | .. . . .      | 1                 | .. . . .  | 1      |
| Western " . . . . .           | 2        | .. . . .      | .. . . .          | .. . . .  | 2      |
| Kentucky blue grass . . . . . | 1        | .. . . .      | .. . . .          | .. . . .  | 1      |
| Parsnip . . . . .             | 1        | .. . . .      | .. . . .          | .. . . .  | 1      |
| Total. . . . .                | 93       | 10            | 49                | 1         | 153    |

SAMPLES TESTED FOR GERMINATION.

| Kind of Seed.                  | Alberta. | Saskatchewan. | British Columbia. | Manitoba. | Total. |
|--------------------------------|----------|---------------|-------------------|-----------|--------|
| Oats . . . . .                 | 633      | 92            | 3                 | 4         | 732    |
| Wheat . . . . .                | 222      | 15            | 1                 | 1         | 239    |
| Barley . . . . .               | 117      | 7             | .. . . .          | .. . . .  | 124    |
| Flax . . . . .                 | 9        | 1             | .. . . .          | .. . . .  | 10     |
| Rye . . . . .                  | 8        | .. . . .      | 1                 | .. . . .  | 9      |
| Speltz . . . . .               | 3        | .. . . .      | .. . . .          | .. . . .  | 3      |
| Peas . . . . .                 | 3        | .. . . .      | .. . . .          | .. . . .  | 3      |
| Grasses and clovers . . . . .  | 84       | .. . . .      | 35                | .. . . .  | 119    |
| Roots and vegetables . . . . . | 165      | .. . . .      | 7                 | .. . . .  | 172    |
| Total. . . . .                 | 1,244    | 115           | 47                | 5         | 1,411  |



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## INVESTIGATION WORK.

With a view to determining the extent to which feed stuffs which are sold in Canada are contaminated with vital weed seeds, several samples have been collected by the seed inspectors and analysed for weed seed contents at the Ottawa seed laboratory. Although only a comparatively few samples have so far been analysed, the results clearly indicate that there is great danger of weed contamination through the use of feeding stuffs, as the grinding is not sufficiently fine to destroy the vitality of even the larger weed seed. Twenty-four samples of bran were analysed. Nine of these were free from weed seeds while the other fifteen samples averaged 23 per pound, one going as high as 83 per pound. The weed seeds most commonly found were wild oats, ball mustard, wild buckwheat, ragweed, stinkweed, chess and lamb's-quarters. Two samples of shorts were analysed. One was free from weed seeds and the other contained darnel and wild buckwheat at the rate of 11 per pound. Six samples of ground feed were analysed and only one was free from weed seeds, the average being 200 per pound. One sample of chopped barley contained 1,021 weed seeds per pound. The seeds found in this sample were Canada thistle, night-flowering catchfly, false flax, perennial sow thistle and several other species. The three samples of rolled oats analysed were all badly contaminated, the average being 1,785 weed seeds per pound. Among the most common seeds found in the rolled oats were wild oats, Canada thistle, catchfly, perennial sow thistle and bladder campion.

## VITALITY OF SEED CORN, FIELD ROOTS AND GARDEN SEEDS.

The work of investigation into the vitality of the seed corn, field roots and garden seeds that are being sold throughout the Dominion has been continued and enlarged upon. The following tabulated statement shows the kinds and number of the seeds tested for germination, together with the average percentage vitality, the standard for good seed, the number of samples which came up to the standard, and the number below two-thirds the standard:—



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RESULTS OF INVESTIGATION OF SEED CORN, FIELD ROOTS AND GARDEN SEEDS.

| Kinds of Seeds.    | Number of Samples Tested. | PERCENTAGE OF GERMINATION. |          |          |                         | NUMBER OF SAMPLES WITH GERMINATION. |  |
|--------------------|---------------------------|----------------------------|----------|----------|-------------------------|-------------------------------------|--|
|                    |                           | Maximum                    | Minimum. | Average. | Standard for good seed. | Up to stand-ard for good seed.      | Below $\frac{3}{4}$ stand-ard for good seed. |
| Asparagus. ....    | 1                         | 80                         | 80       | 80       |                         |                                     |  |
| Beans.....         | 20                        | 100                        | 2        | 77       | 90                      | 10                                  | 4  |
| Beets.....         | 60                        | 179                        | 26       | 133      | 160                     | 13                                  | 11   |
| Cabbage.....       | 35                        | 99                         | 16       | 84       | 93                      | 16                                  | 4  |
| Carrot .....       | 55                        | 89                         | 0        | 62       | 80                      | 11                                  | 13   |
| Cauliflower.....   | 12                        | 100                        | 62       | 88       | 90                      | 7                                   |  |
| Celery.....        | 13                        | 93                         | 47       | 72       | 60                      | 10                                  |  |
| Chicory.....       | 1                         | 76                         | 76       | 76       |                         |                                     |  |
| Citron .....       | 5                         | 93                         | 37       | 75       | 90                      | 1                                   | 1  |
| Corn (sweet).....  | 39                        | 98                         | 24       | 72       | 95                      | 4                                   | 12   |
| Corn (field).....  | 29                        | 99                         | 47       | 82       | 95                      | 7                                   | 4  |
| Cress .....        | 2                         | 94                         | 83       | 89       |                         |                                     |  |
| Cucumber.....      | 44                        | 100                        | 1        | 91       | 90                      | 36                                  | 1  |
| Egg plant.....     | 1                         | 50                         | 50       | 50       |                         |                                     |  |
| Kale .....         | 3                         | 96                         | 92       | 94       |                         |                                     |  |
| Kohl Rabi.....     | 1                         | 34                         | 34       | 34       |                         |                                     |  |
| Leek.....          | 2                         | 58                         | 51       | 55       |                         |                                     |  |
| Lettuce. ....      | 29                        | 100                        | 5        | 88       | 90                      | 25                                  | 3  |
| Mangels.....       | 30                        | 243                        | 71       | 144      | 160                     | 12                                  | 6  |
| Muskmelon.....     | 6                         | 98                         | 88       | 94       | 90                      | 4                                   |  |
| Mustard (white) .. | 2                         | 98                         | 96       | 97       |                         |                                     |  |
| Onion.....         | 44                        | 95                         | 0        | 63       | 90                      | 7                                   | 16   |
| Parsley.....       | 7                         | 89                         | 24       | 54       | 65                      | 3                                   | 3  |
| Parsnips.....      | 24                        | 64                         | 1        | 49       | 65                      |                                     | 5  |
| Peas .....         | 19                        | 96                         | 50       | 78       | 97                      |                                     | 5  |
| Pepper.....        | 7                         | 69                         | 13       | 35       |                         |                                     |  |
| Pumpkin.....       | 11                        | 100                        | 25       | 81       | 90                      | 5                                   | 1  |
| Radish.....        | 41                        | 100                        | 25       | 86       | 95                      | 14                                  | 4  |
| Rape .....         | 7                         | 100                        | 94       | 98       | 95                      | 6                                   |  |
| Rhubarb.....       | 4                         | 85                         | 70       | 79       |                         |                                     |  |
| Sage .....         | 5                         | 92                         | 51       | 65       |                         |                                     |  |
| Salsify.....       | 6                         | 88                         | 4        | 50       | 85                      | 1                                   | 3  |
| Savory.....        | 3                         | 57                         | 28       | 44       |                         |                                     |  |
| Spinach.....       | 14                        | 94                         | 12       | 50       | 90                      | 1                                   | 12   |
| Squash.....        | 21                        | 98                         | 20       | 73       | 90                      | 6                                   | 5  |
| Sunflower.....     | 1                         | 98                         | 98       | 98       |                         |                                     |  |
| Thyme.....         | 2                         | 60                         | 45       | 53       |                         |                                     |  |
| Tobacco.....       | 1                         | 39                         | 39       | 39       |                         |                                     |  |
| Tomato.....        | 19                        | 98                         | 62       | 88       | 90                      | 12                                  |  |
| Turnip.....        | 75                        | 100                        | 0        | 89       | 95                      | 47                                  | 6  |
| Watermelon.....    | 12                        | 95                         | 0        | 70       | 90                      | 3                                   | 2  |
| Total.....         | 713                       |                            |          |          |                         | 261                                 | 121  |

LIVE STOCK BRANCH.

The work of this branch during the year, while characterized by no unusual or striking features, has been carried on in an exceedingly satisfactory manner, and in some lines has shown marked development.

The task of completing the organization of the National Records, which demanded so much time and attention in the preceding year, especially in the province of Quebec, has also received considerable attention during the past season. While all the preliminary difficulties had been overcome, it was necessary to continue the work of the commission appointed for the purpose of inspecting such French-Canadian



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horses as were offered by their owners for registration in the new Stud Book established for the breed. During the greater part of the summer and fall, the commission was busily engaged, and although every effort was made to complete the work at the time previously agreed upon, namely, December 31, 1908, it was found impossible to visit all parts of the province before that date. The counties of Gaspé and Bonaventure, as also Isle aux Coudres, in which there are said to be a considerable number of typical French-Canadian horses, were therefore left to be dealt with during the coming summer. A few horses in the province of Ontario and some scattered representatives of the breed in Manitoba and Alberta, will also have to be visited and examined. When these have been seen, there will, I think, remain outside of the record but few horses properly entitled to registration therein.

That the endeavour to re-establish the old French-Canadian breed of horses on sound and legitimate lines was worthy of our best efforts was, I think, demonstrated beyond question at the exhibition held at St. Johns, Quebec, in September last. On this occasion there were brought forward in competition for special prizes offered by my department in co-operation with the French-Canadian Horse Breeders' Association, 46 stallions and 76 mares registered in the new record. These animals were, almost without exception, of very superior quality, and the showing made was such as to impress most favourably a number of the best judges of light horses in the Dominion, who considered themselves fortunate in being present to see it. There is, of course, an element of doubt as to whether it will be possible to re-establish the old breed completely, with the comparatively small number of typical registered stallions available, especially when the large area over which the mares are dispersed is taken into consideration. Whether it will be advisable to depend altogether upon these horses, or to introduce and register carefully selected male individuals of other light breeds, is a question which will have to be decided by the association in the near future. Meanwhile, only those conforming to the established standard as regards size, type and breeding have been considered eligible for registration.

No new records have been opened during the year, but there is every probability that in the coming season a number of young associations will apply for incorporation.

Action of this kind, on the part of those interested in breeds for which no records now exist, has received an impetus from the new customs regulations, which, after being fully discussed at the meeting of the National Live Stock Association held here in February, 1908, were later formulated by the National Record Board, and on my recommendation adopted by the Customs Department in June of last year. Under this new ruling free customs entry will only be granted to animals imported for the improvement of stock upon the production by the importer of a certificate of registration in the Canadian National Records, or, in the case of Holstein-Friesian cattle, a similar certificate of registration signed by the secretary of the Holstein-Friesian Association of Canada.

In the case of animals for which no record exists in Canada, free entry will be granted on the presentation of an import certificate signed by the accountant of the



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National Records, such certificate to be issued by him on presentation by the importer of a certificate in a recognized record in the country of origin of the breed.

From these regulations it will be seen that no provision is made for the free admission of animals coming from countries other than that in which the breed to which they belong originated, unless there exists a Canadian record in which they are eligible for entry.

This affects particularly a number of European breeds of different species for which records exist in the United States but not in Canada, and as the only way in which the difficulty can be overcome without a very radical change is by the formation of Canadian records for such breeds, preliminary steps with this end in view are being taken by those interested in their formation.

While on the subject of national records, I may say that I have succeeded in making new and much more favourable arrangements for the transportation at reduced rates of pure bred stock for breeding purposes. This concession is now granted only when the shipper can present either a certificate of registration in the Canadian National Records, or, in the case of Holstein cattle, a certificate of registration in the Canadian record for that breed.

The whole procedure is thus greatly simplified both for the shipper and the railway companies. The latter, however, have of their own accord granted a special concession to importers of pure bred stock when accompanied by an import certificate issued by the National Records, such animals being given the reduced rate from the port of entry to destination.

The work of supervising and testing such pure bred dairy cows as are entered for the record of performance has grown greatly in popular favour. The demands of breeders have, in fact, increased to such an extent as to require the engagement of a third inspector in Ontario and Quebec alone. Cows are also under supervision in other provinces, but as the number of animals entered is not in any of these cases great, the work is done by men who are fully qualified to perform it properly, but who do not devote their whole time to the service of the department. This investigation of the milking qualities of the most promising representatives of the different dairy breeds is, not only, in itself, of great economic importance, but is also exceedingly valuable as an educational factor. The benefits derived from it do not end in the simple indication of any particular breed or special individual as being possessed of exceptional milking qualities. The natural desire to have each contestant make the best possible showing tends to bring about thoughtful and, under the circumstances, careful and conscientious experimentation with different feeds, and at the same time emphasizes the importance of special care and kindness in the treatment of milking cows. The inspectors report that the conditions under which the work is carried on and the influences which arise from it, are exercising a marked beneficial effect upon all those interested, especially on the rising generation.

As usual the branch has furnished many speakers for institute meetings and instructors for live stock judging classes, as also judges for many fairs in all the



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provinces except Manitoba and Ontario, where this class of work is managed almost entirely by the provincial authorities.

The Live Stock Commissioner and his various agents always co-operate willingly when requested with the various provincial departments of agriculture.

Some difficulty have been encountered by the Maritime Stock Breeders' Association in carrying on the Amherst Winter Fair, an institution which, originally established under the auspices of my department, has for a considerable time been of the greatest possible value to the live stock industry of the three eastern provinces. I found it necessary, early in the year, to make a new arrangement whereby the association will receive rather more direct financial assistance than it previously did.

Carrying out the policy of safeguarding, as far as possible, the interests of the commercial live stock breeder, rather than those of the producer of pure bred stock, who, as a rule, is well able to take care of himself, the Live Stock Commissioner has, during the past year, devoted much attention to the question of transportation and marketing, with particular reference to the export trade in western cattle. A special report on this subject is now in the press and will very shortly be available for circulation.

Our present methods of handling commercial live stock are undoubtedly far from perfect, and it is possible that, after the subject has been fully investigated, I may find it necessary to ask for special legislation, with the object of bringing about an improvement in existing conditions.

The experiments conducted by the Health of Animals Branch in connection with the malady locally known as Pictou cattle disease have now been concluded. It has been shown that sheep can be safely and profitably used in eradicating ragwort, the weed responsible for the disease in question, and efforts are therefore being made by the Live Stock Commissioner to encourage and stimulate the sheep industry in those portions of Nova Scotia and Prince Edward Island where this weed has obtained a foothold, the country being remarkably well adapted for this class of live stock. A considerable number of pure bred rams were last year purchased by the Live Stock Commissioner, and after being pastured during the summer on the Experiment Station at Antigonish, were sold in the fall at four different points in the weed infested areas. The prices obtained were fairly satisfactory, and it is my intention to still further encourage by similar methods the production of sheep in these districts, where they will not only serve a useful purpose in destroying the weed, but will also constitute an important and constantly increasing source of revenue to the farmer.

During the year several valuable publications on live stock subjects have been issued. Among these the most noteworthy is an exhaustive treatise on sheep husbandry in Canada. This bulletin, which was compiled by Mr. J. B. Spencer, B.S.A., has been highly appreciated by the public, and will undoubtedly prove of great value to those interested in sheep raising. A similar bulletin dealing with beef production is now in course of preparation and will shortly be published.



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The combination under one head of the Health of Animals and Live Stock Branches continues to work very satisfactorily, as it has not only brought about a union of forces which formerly, almost unavoidably, overlapped in several directions, but has also effected a considerable saving in salaries and other expenses.

### EXPERIMENTAL FARMS BRANCH.

The experiments and investigations conducted in all the divisions of this work have a more or less direct practical bearing on farming experience in this country. Their influence is far reaching and helpful in every direction. Gratifying testimony as to their value and usefulness has come in from farmers in every part of the Dominion, and those who have participated in the benefits conferred by these institutions have manifested increased interest in the work.

Experiments in the cultivation of the land in different parts of the Dominion and its treatment to bring about conditions favourable to plant growth with the object of increasing the crop output have all been most helpful.

The co-operative experiments with farmers for the general improvement of farm crops have been continued. These trial plots engage the attention of about forty thousand farmers. The grain distributed is of the choicest and purest sorts obtainable, true to name and thoroughly clean. With a large influx of new settlers every year the helpful influence of such work is difficult to estimate. In this manner the best and most productive sorts find their way to the remotest corners of the Dominion, producing bountiful returns. The early maturing varieties of cereals which have recently been produced at Ottawa in considerable numbers will, no doubt, extend the wheat growing area in Canada considerably. This field of labour is full of promise.

In the Division of Entomology and Botany a great loss has been sustained during the past year in the death of Dr. James Fletcher, Entomologist and Botanist to the Dominion Experimental Farms. Dr. Fletcher's decease was sudden and unexpected. He had held office in connection with the Experimental Farms since their organization in 1887, and in the twenty-one annual reports of the work done in his division a large amount of information has been given of great value to the farmers of Canada. He studied the life-histories of the many insect pests which prey on the crops of the Canadian farmer and cause him much loss. He also observed closely the life-history and habits of the parasitic species which feed on and destroy these enemies of the farmer. He reported also on the most practical remedies to be used for the destruction of injurious insects. As Botanist he studied the value of different species of grasses and other fodder plants suitable to Canadian conditions, as well as many other important practical subjects. He also devoted much attention to the study of weeds and the best methods of treatment for their eradication.

### AGRICULTURAL AND LIVE STOCK DIVISION.

Soil cultivation and crop growing receive much attention. An area of about 200 acres is devoted to the work of studying methods of cultivation, the value of different crops for live stock farming and rotations.



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A great variety of grains and crops have been grown, and a number of rotations tested. Results so far would seem to indicate corn, roots, clover, timothy and oats as the great staple crops on which the farmer may count most certainly for an abundant supply of the best kinds of feed for the various classes of stock kept on the average farm.

Experiments to determine the best methods of cultivation all point to the great importance of the most thorough tillage for all crops. Among the crops mentioned, corn is one of those demanding the greatest attention to cultivation and the most intelligent preparation of the soil. This plant is evidently destined to become one of the most important in Canada, or at least in those parts of the Dominion where dairying and beef production are important industries. This on account not of the grain produced, but rather by reason of the abundant yield of forage capable of being easily preserved in the form of ensilage.

A study of the returns from corn seem to indicate the following conditions and preparation as the most likely to give satisfactory results. Good drainage is an absolute necessity. The kind of land is of minor consequence, but a warm soil seems to be preferred.

A clover meadow, an old pasture or a sod field are the most suitable. Stubble land, potato or root land are not likely to give such good results.

Barnyard manure should be applied at the rate of from 12 to 20 tons per acre. It should be so applied as to remain near the surface when the land is ready for seeding.

If spring ploughing is practiced, as had better be done on sandy soils, then a rather shallow furrow (4 inches) should be turned and the manure ploughed in. If ploughing is done in the fall, as is probably better where planting on clayey land, then a deeper furrow (6 or 8 inches) should be turned and the manure had better be worked in on the surface the following spring.

A good solid seed bed by means of disk harrow, roller and smoothing harrow.

The corn should be sown in rows 42 inches apart or in hills 36 inches apart each way.

The varieties most suitable would seem to be Longfellow and similar flints, White Cap, Yellow Dent and Leaming, and for some of the more southerly parts, Mammoth Cuban and similar large sorts might be advantageously used.

*Roots* also seem to do best on clover sod or pasture. In the case of this crop, however, early fall planting, thorough fall working and a second cross ploughing or ridging up seem to be advisable. Barnyard manure is necessary, 15 to 30 tons per acre.

Sow in rows or ridges 30 inches apart. Roll ridges before sowing seed, also after sowing if land is very light or season very dry.



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*Oats* do best when sown on last year's corn or root land that has been ploughed with a very shallow furrow. Sow clover 10 lbs. and timothy 10 or 12 lbs. per acre.

Most thorough cultivation has proven over and over again to be profitable cultivation.

In applying manure a careful even application is necessary to get best results. The manure spreader is for this reason proving to be a very valuable implement.

New horse stables, remodelled cow barns and a small piggery, all floored in cement, are proving that this material is superior to any other flooring so far tried for the various classes of stock mentioned.

Various systems of ventilation have been tried, and are still being experimented with. Results so far seem to indicate most satisfactory air conditions when the pure air enters at or near the floor and the foul air leaves at the ceiling.

Another peculiarity of the new buildings is the abundance of light. This feature is proving of very great value in the maintenance of the health and comfort of the different classes of animals.

With live stock, the same lines of work in breeding and experimental feeding are being continued as in recent years.

One notable part of the work has been the results secured in connection with the French-Canadian cow. A small herd of this breed bought here and there from various breeders in the province of Quebec has given very satisfactory returns in the way of butter and milk produced. They have been particularly remarkable for the low cost of production, comparing most favourably with the cost of production in the herds of the other breeds of cattle kept on the Experimental Farm.

The result of work extending over six years show that to produce 100 lbs. of milk it costs for the feed in the case of the French-Canadians, 57.64 cents; Shorthorns, 65.47 cents; Guernseys, 63.47 cents, and Ayrshires, 52.36 cents. As indicated, the French-Canadians stand second in the list for cost of production of 100 lbs. of milk, the Ayrshires being first. In estimating the cost of one pound of butter, however, the French-Canadians surpass all the others, standing first, as indicated by the following figures: To produce one pound of butter cost with French-Canadians, 10.84 cents; with Guernseys, 10.97 cents; with Ayrshires, 11.38 cents, and with Shorthorns, 14.54 cents.

The individual yearly records of some of the cows make a very good showing, as will be seen on noting the following:—

*Fortune d'Oka*.—8,734 lbs. milk, testing 4.66 per cent fat, equal to 468.60 lbs. butter in one year.

*Zamora*.—7,694 lbs. milk, testing 4.96 per cent fat, equal to 448.80 lbs. butter in one year.



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*Exilée*.—8,623 lbs. milk, testing 4.10 per cent fat, equal to 416.90 lbs. butter in one year.

*Inoquette*.—6,479 lbs. milk, testing 4.1 per cent fat, equal to 316.65 lbs. butter in one year.

*Inoquette*.—6,479 lbs. milk, testing 4. per cent fat, equal to 316.65 lbs. butter in one year. This was her record with her first calf at 2½ years of age.

*Duchesse 2eme*.—5,749 lbs. milk, testing 4.4 per cent fat, equal to 303.64 lbs. butter in one year, with her first calf.

The small herd of seven cows, two of them heifers, produced last year an average of \$77.48 worth of butter, the butter valued at 24 cents per pound.

## HORTICULTURAL DIVISION.

The growing season of 1908 was one of the driest, if not the driest, in the history of the Experimental Farm. From the latter part of June until late in October there was an insufficiency of rain for most horticultural crops, and at times the drought was extreme. The crops which suffered most were the strawberry, raspberry and potato, which were much reduced. The deeper rooted tree fruits did not suffer so much. There was a large crop of apples in 1908, which, however, matured earlier and did not keep as well as usual owing to the dry season, which induced early maturity. One of the most interesting features in the Horticultural Division in 1908 was the large number of seedling apples which fruited, there being over 400 kinds fruiting among those which originated at the Experimental Farm. Many of these seedlings are quite promising, among the best of those which fruited being seedlings of the Wealthy, Swayzie, Pomme Grise and Langford Beauty. Several of these have been named, and are being propagated for further test. What is being sought for especially among these seedlings is a late keeping winter apple of handsome appearance and very good quality, which will succeed over a wide area in the colder parts of the Provinces of Ontario and Quebec.

As a record is kept of the yields of each tree in the orchards at the Experimental Farm, it is possible to find out what the average yield of each tree has been. This record has been worked up from time to time in connection with some of the apple trees, and it has been found that certain trees produce more than twice as much as others of the same variety planted at the same time. After computing the crop for 1908, it was found that these differences are still shown in an average extending over ten and eleven years. Trees have been propagated to learn whether these characters are constant when the scions are taken from them and other trees are grown.

There is a large area of land in Canada where the European plums will not succeed, but where the native wild plums do well. As these, on the whole, are not of very good quality, the endeavour is being made to improve them by growing seedlings from the best. Some promising plums have already been obtained in this way, and in 1908 a number of new ones fruited.



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Seedlings are also being raised of pears, cherries and strawberries. Some fine strawberry seedlings fruited in 1908.

The fruit trees were kept well sprayed in 1908, and several new fungicides and insecticides were used for experimental purposes.

Experiments with vegetables were continued last season, the newer varieties being compared with the old ones and notes taken on the relative merits of each. Selecting to obtain earlier strains of tomatoes, beans, peas and corn was continued in 1908. In an experiment with tomatoes now extending over several years it has been found that selecting from the individual plant appears to have given a more fixed early strain than selecting each year from the earliest ripe fruits of any plant without regard to its ancestry.

The forest belts at the Experimental Farm, which are included in the Horticultural Division, still continue to prove useful in furnishing material for studying the relative growth of the different trees under various conditions, and the effect one species of tree has upon the other. Measurements of average trees were again made in 1908.

The collection of trees, shrubs and herbaceous perennials in the Arboretum and Botanic Garden continues to grow, and as the individual specimens increase in size from year to year the value and attractiveness of the collection increases also. During 1908 a list of the herbaceous perennials was completed and published, and has been very favourably received by horticulturists. More than 2,000 species and varieties are given, with notes on their hardiness, time of blooming, colour of flowers and height of the plants. The most attractive plants are starred. Lists of the best twenty-five, fifty and one hundred herbaceous perennials are also given.

The correspondence of the Horticultural Division is steadily increasing, and is an evidence of the continued interest in the horticultural work being done at the Central Experimental Farm.

During the year the Horticulturist has attended a number of important meetings and rendered what assistance he could to the farmers and fruit growers with whom he came in contact.

#### CHEMISTRY DIVISION.

The work of the Chemical Division of the Experimental Farm system may be said to be of a two-fold character: to furnish the farmer with information and advice of a chemical nature regarding agricultural matters, and thus enable him to carry on his everyday work with greater economy and efficiency; and, secondly, to undertake such investigations and researches by the aid of chemistry as may tend to solve the problems that we find to-day alike in general farming as in the various specialized branches of agriculture.

The direct assistance to farmers consists very largely in replying to questions. Inquiries are sent in in ever-increasing numbers from all parts of the Dominion, so that attending to the correspondence forms an important part of the work of the



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chemist. It further comprises the analysis or examination of samples of an agricultural character—soils, cattle foods, insecticides, well waters, &c., forwarded by farmers.

Some of the more important researches relating to Canadian agriculture which have received attention during the past year, may be briefly referred to as follows:—

## SOILS.

The most important series of soils under investigation consisted of a number of samples of surface and subsoils collected by the chemist while on an agricultural tour in 1906 in the valleys of the Upper Columbia and Kootenay rivers, B.C., districts generally held to be within the semi-arid belt. The results of this examination have clearly indicated the general character of these soils, which were found for the most part to compare favourably with soils of well-marked productiveness occurring in other parts of the Dominion. The data are discussed at some length in the current report of the division, and the information there found will undoubtedly prove of assistance in the economic maintenance of fertility in these and similar areas.

## WHEAT.

As for a number of years past, a very considerable amount of research work has been done in connection with this important cereal. The varied character of these investigations is well indicated by the following subject titles taken from the annual report:—

*Influence of Age.*—The effect of storage on wheat and flour, in so far as it might be determined by chemical analysis, has been studied, and the results obtained have been compared with those from actual baking trials by the Cerealist. In the larger number of the wheats and flours examined the determinations made did not indicate any general changes in composition of a marked and progressive character.

*Influence of Environment.*—In continuing the study of this problem, wheat grown on irrigated and non-irrigated land at Lethbridge, Alberta, and on sod and fallow land at Lacombe, Alberta, have been analysed. It was found that early ripening brought about by lessening the supply of soil moisture and high temperatures, produced a hard, glutinous wheat. On the other hand, prolonged vegetative growth, as induced by excessive moisture and comparatively low temperatures, allowed a further deposition of starch, resulting in a more or less soft kernel. We have, therefore, in the usual autumnal climate of the Northwest a most important factor in the production of first quality wheat.

*The effect of Dampness.*—This work was done to supplement that of the Cerealist in determining what deterioration or change in baking strength might result from keeping wheat more or less damp, as sometimes occurs when bad harvesting weather sets in while the grain is still in the stook. Under the conditions of the experiment, which resulted in the wheat containing from 20 per cent to 25 per cent moisture, no marked chemical changes apparently occurred during the first week or ten days. The



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data, however, are as yet insufficient to allow of any final conclusion, though it is apparent that subjection of the well ripened wheat to dampness for a short period, provided there is no heating or fermentation, may not materially affect the quality of the wheat.

*Influence of Fertilizers on Composition.*—The cereals harvested in 1907 from the fertilizer plots of the Experimental Farm are being submitted to analysis with the view of ascertaining what effect the furnishing of the various elements of plant food may have had on the composition of the grain. So far as the work has proceeded no appreciable influence has been observed upon the amounts of nitrogen, phosphoric acid and potash normally present in the grain by modifying the character and amount of plant food supplied.

#### BARLEY.

A very considerable amount of work has been accomplished in connection with Canadian-grown barleys—both two and six-rowed varieties. It has been found that, as in the case of wheat, environment—and more particularly the climatic conditions under which the grain matures—may very materially affect the protein content. Rapid growth, with a dry, hot season during the ripening period, results in a barley rich in protein, while cool and damp autumns give a starchier grain.

#### INSECTICIDES AND FUNGICIDES.

Much work of an investigatory character, yielding results of importance to orchardists and fruit growers, has been done. Analyses have been made of many commercial spraying preparations found on the Canadian market including Lead arsenate, Bordeaux mixtures and Lime-sulphur washes. Spraying against injurious insects and fungi is now widely practiced, and there is evidently a tendency to purchase the ready-made spray rather than to make the preparation on the farm. In view of this it has been thought desirable, in addition to giving instruction for the making of sprays at home, to examine and report upon the composition and relative effectiveness of the various brands offered for sale.

#### COMMERCIAL FEEDING STUFFS.

Particular attention has been paid to the matter of feeding stuffs, the analyses of about forty being given in the report of the chemist. These include milling and factory by-products of various kinds. This work has been done in response to a widespread demand for information respecting their feeding value. Owing to the varied nature of these materials, chemical analysis, in a very large number of instances, is necessary to determine their nutritive qualities. It enables the farmer to protect himself against worthless feeds and buy to the best advantage.

#### WELL-WATERS FROM FARM HOMESTEADS.

Ninety-six samples from farm wells in different parts of the Dominion have been analysed and reported on. It is an encouraging sign that our farmers are taking



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more and more interest in this matter of a pure water supply. It will mean better health in the farm home and greater thrift among the live stock.

## MEAT INSPECTION DIVISION.

Between two and three hundred samples of various chemicals, &c., collected by Inspectors under the Act at Canadian packing establishments, have been submitted to careful chemical and microscopical examination. These comprised, chiefly preservatives, spices and colouring matters, and were examined as to their nature and the presence of deleterious substances.

## TOBACCO DIVISION.

Assistance has been rendered the Tobacco Division by the complete analysis of a number of soils and fertilizers used in experimental work for tobacco growing.

## CEREAL DIVISION.

Though the past season at Ottawa was not very favourable for the growing of cereals, considerable progress was made in the breeding, selecting and testing of varieties of wheat, oats, barley and peas. In addition to these most important kinds of grain, experiments were carried on with flax, field beans, Indian corn, field roots, &c. Many of these experiments are proving of considerable interest, and may be expected to give results of increasing value from year to year.

At most of the branch experimental farms, climatic conditions were such as to yield satisfactory crops of cereals, so that good progress was made both in testing the varieties in plots, and in propagating in larger fields such of the most desirable sorts as are intended for free distribution to farmers.

*Selected Strains of Cereals.*

Now that the value of selection in the production of the best types of cereals is better understood by farmers in general, great interest is being manifested in the new, selected strains which have been produced at Ottawa by the Cerealist during the past few years; and, of which, some were available for free distribution for the first time this year. Two of these may be specially mentioned.

Huron Selected is a new strain of Huron wheat of great vigour and of strikingly uniform character. It has red chaff, and is bearded, and yields flour of a clear, pale, yellowish colour and of medium to high baking strength. The kernel is hard and of a rich reddish colour. This variety ripens early.

Stanley A is a selection from the original Stanley wheat, which shows about the same degree of earliness and productiveness, but which is somewhat superior in the baking strength of its flour, and shows a very striking gain in regard to the colour of the flour. The new selected strain yields flour which is cream-coloured, and quite free from the yellowish character which is sometimes objected to by millers.



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These two new strains show so distinct an advance on the original varieties from which they were obtained that they have already begun to replace the older sorts.

The popular variety, Preston, has also been improved by re-selection, but the best new strain is not yet ready for distribution.

### *Red Fife Wheat.*

Several selected strains of Red Fife wheat were started some years ago. These have been propagated and studied for a considerable length of time, and their number has at last been reduced to three. One of these is distinctly earlier in ripening than the original variety. It has therefore been named Early Red Fife, and will be distributed as soon as sufficient seed is available. While this wheat can be distinguished from ordinary Red Fife in some ways, there is no difference in regard to the kernels or the flour made from them. Milling and baking tests conducted in the laboratory of this division have shown that the Early Red Fife is identical with ordinary Red Fife, so far as yield, strength and colour of flour are concerned. Many requests for samples of Early Red Fife have already been received; but no general distribution will be possible for a year or two yet, as the quantity of seed now on hand is very small.

### *New Early Varieties of Wheat.*

Since the degree of earliness manifested by the Early Red Fife is not nearly sufficient for some of the wheat-growing districts of Canada where the summer season is very short, many new sorts are being originated at Ottawa every year, with a view to finding some which will combine still greater earliness with the most desirable qualities of Red Fife. The number of these new sorts now on hand is quite large, but most of them must be studied for some considerable time yet before the final selection of a very few sorts, adapted to different climates and soils, can be made. Two new and promising kinds were, however, sent out to farmers this year for test, after having been tried with great success at some of the branch experimental farms for one or two seasons. These varieties are Marquis and Chelsea. Marquis is very similar to Red Fife, but is earlier in ripening. The resemblance between Marquis and Early Red Fife is quite striking, though they are of different descent. Marquis may prove of great value if it shows, in earliness, a distinct advance on Early Red Fife. Chelsea is a very early, beardless, red wheat which produces flour of a pale cream colour and of medium to high baking strength.

### *Oats and Barley.*

Many new cross-bred varieties of oats and barley are now being propagated, and some of the best of these will be ready for distribution before very long. Some of the new kinds of oats come out free from hull when threshed, and are of particular interest on this account. Many of the barleys are also hullless, and most of them are beardless. Productiveness, ability to resist rust, stiffness of straw and earliness in maturing are other characters to which particular attention is being paid in the breeding and selecting of new kinds.



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The occasional need for varieties of oats and barley having somewhat unusual characters is clearly recognized, and special efforts are being made to provide all the required new types.

*Milling and Baking Investigations.*

Milling and baking tests of old and new varieties of wheat were continued this past winter as usual. Two subjects of special interest occupied much of the time. The effect of storage on wheat and flour was further studied in considerable detail. The results obtained confirm, on the whole, those of previous years, and show that as a rule both wheat and flour improve, from a baker's point of view, in strength and in colour (of flour) when stored under good, dry conditions. The improvement is more rapid when the material is kept over as flour than when kept as wheat.

A special series of tests was undertaken to determine the effect of excessive moisture in wheat intended for flour making. A good, bright sample of wheat was kept very damp for many days, portions of it being taken out from time to time. These portions, as well as the original wheat, were dried and ground. The flour from each was then subjected to a series of baking tests in order to ascertain what changes, if any, had occurred. It was found that though the damp wheat was quite spoiled in appearance, the total yield of flour obtainable was essentially unchanged, and that the bread-making qualities of the flour from some of the damp samples were quite equal to those of the flour made from the original sample. The conclusions reached were that wheat may remain quite damp for a considerable length of time without injury to the baking strength of the flour, provided the wheat has not become at all musty.

Further tests in regard to the effects of dry storage and the effects of dampness are contemplated.

## POULTRY DIVISION.

In this division the work of developing prolific egg-laying strains and correct market types of fowls was continued. Trap nests were used as the most reliable means of obtaining data. Experience so far gained shows that, by breeding from trap nest selected layers and market types, better egg layers and flesh-producing strains follow. The latter characteristic is most marked in fowls of the utility, or heavier, varieties. The beginner in poultry keeping will find it to his advantage to procure eggs or stock from parent stock of ascertained merit as egg layers or flesh producers.

The trial of different styles of unheated poultry houses during the winter seasons of the past three or four years has also been an interesting and instructive feature of the work of this division. The more advanced pattern of unheated poultry house with a cotton front in lieu of boards and without scratch shed has given satisfactory results. Letters from several correspondents in Saskatchewan and Alberta also express satisfaction with this style of house, which they say is not only suitable to their winter conditions but economical to construct, the latter a matter of no small moment to them. The comparison of the well ventilated cotton front and unheated poultry house method of keeping fowls during winter, with the close and poorly ventilated system



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of the heated houses of past years, shows marked difference, and is apparently a step in the right direction. The experience gained should tend to make poultry keeping on the farm during the winter season much easier, for the opinion is yet entertained by many farmers that winter egg laying is dependent upon the poultry house being warm. This warmth is often secured at the cost of proper ventilation.

During the months of April and May of last year there was demand for a large number of eggs for hatching from the different breeds of fowls kept in the division. As far as practicable the orders for eggs were filled.

A large and growing correspondence was a gratifying instance of the interest being taken in the poultry branch of farm work.

A striking feature of the year was the high price of strictly new laid eggs during both the winter and summer seasons. This fact should be an incentive to greater egg production throughout the country.

#### BRANCH FARMS.

##### *Experimental Farm, Nappan, N.S.*

The spring opened very late, and was for the most part cold and wet. The earliest sowing of grain on the Nappan Farm was on May 20. Notwithstanding this late period of sowing, subsequent favourable weather brought the crops on rapidly, and wheat gave a considerably higher average yield than in 1907, and barley a slightly higher yield. In oats there was a falling off of about six bushels in the average yield per acre, 68 bushels 16 lbs. being the average returns for 1907, and 62 bushels 24 lbs. for 1908.

The average yield of Indian corn on the trial plots of the Experimental Farm was 23 tons 251 lbs. per acre, which was about double that obtained in 1907. Potatoes and field roots, with the exception of carrots, gave somewhat smaller crops than in 1907.

##### *Experimental Farm, Brandon, Man.*

At the Brandon Farm the spring weather was favourable for sowing, so that all crops were got in in good time and under good soil conditions. Favourable weather continued until about the middle of July, when two weeks of very hot weather occurred. This ripened the grain very rapidly, and thus the yield of some crops was considerably reduced. Oats suffered most severely. Heavy frost held off until all the grain crops on the Experimental Farm were harvested. There were several degrees of frost on August 22, which touched some of the latest wheat, also the corn on low land. The season throughout has been a good one in the Brandon district, a good average crop having been secured and in good condition. The varieties of wheat grown averaged a somewhat heavier yield than in 1907, while most of the other crops fell a little short of the figures for that year.

Some interesting experiments have been conducted with stock, including the feeding of steers with no other shelter than the scrub growing in some ravines on one part of the farm.



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*Experimental Farm, Indian Head, Sask.*

The spring of 1908 was one of the finest seasons for seeding in all parts of the province of Saskatchewan which has been had for many years. The weather was favourable at the outset, and the seeding began nearly three weeks earlier than that of 1907. Timely showers kept the ground in a condition of moisture favourable for rapid growth, while hot weather later in the season ripened the grain very fast. On July 25 the temperature reached 94.5 degrees F., the culminating point of a very hot period. This extreme heat had an injurious effect on some of the grain, causing it to shrivel. The weather was exceptionally favourable for harvesting and threshing. The trial plots of wheat in 1908 have given more than twice the crop of 1907. The other grain crops have been somewhat smaller than last year. The grain was nearly all ripe and safely harvested before frost occurred.

Experiments in the growing of roots, corn and potatoes have been continued with satisfactory results. Tests with different sorts of vegetables have also been conducted, many of them with seed grown on the Indian Head Farm.

*Experimental Farm, Lethbridge, Alberta.*

At this new Experimental Farm two series of trial plots were conducted in 1908, one after the methods practiced in connection with 'dry farming,' the other on irrigated land.

The land used for both sets of plots was broken from the bare prairie in the spring of 1907, about three or four inches deep, and backset one or two inches deeper later in the season. The land on the dry or non-irrigated portion was backset in August, while the part to be irrigated was not backset until September or October, which left it more open and less moist, consequently the non-irrigated grain was sown on land in a somewhat better condition of tilth than was the irrigated.

The different varieties of grain were all sown in uniform plots. The preparation of the soil for the trial plots of Indian corn, field roots and potatoes was the same as for the grain.

The crops sown on irrigated land were also on plots of uniform size. No winter wheats were sown on irrigated land. The varieties of spring wheat gave considerably larger crops under irrigation, while the crops of oats and barley were much the same under both methods of culture. Indian corn produced a heavier crop under irrigation, so also did field roots. The experiments referred to on this farm have only been carried on for one year. Winter wheat grown on this farm under 'dry farming' methods gave excellent crops.

*Experimental Farm, Lacombe, Alberta.*

The season of 1908 at Lacombe was much more favourable for wheat growing than that of 1907. The crop has been larger and the grain was well matured. Seeding was about three weeks earlier, and the growth was rapid until August, when cool weather delayed the maturing of the grain, which ripened slowly but fully before frost.



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In 1907 the trial plots of spring wheat gave on an average 21 bushels 51 lbs. per acre, whereas in 1908 the average yield was 33 bushels 34 lbs. per acre. Of the other important farm crops, peas, turnips and potatoes have given larger crops in 1908, while with oats and barley the crops were lower but the grain was better ripened.

*Experimental Farm, Agassiz, B.C.*

The season of 1908 opened earlier, and the grain was sown about ten days sooner than in 1907. The weather also later in the season was favourable to the ripening of grain, and it matured well and early. Oats, two-rowed barley, peas and field roots all gave heavier crops in 1908 than in 1907.

The crop of fruits was on the whole good. Apples were a medium crop and plums a heavy crop.

## GENERAL CROPS.

### FIELD CROPS AND LIVE STOCK OF THE FISCAL YEAR.

We are getting nearer to an actual measure of quantities and values of the agricultural products of Canada since the inception of a system of crop and live stock reports in the Census and Statistics office. Full and accurate reports are not possible yet, but careful indications are becoming practicable. The fiscal year ending with March takes in the harvest of 1908, and the numbers of live stock, and the reports deal with conditions as well as quantities and values.

The growing season opened auspiciously and seeding operations were successfully conducted. At the end of June high standards of condition were reported for all the provinces, and an ample rainfall was recorded everywhere. But the weather took an adverse turn in July, and a drouth set in over a wide area. The effect was noticeable on all the late growing crops, and although failure did not occur anywhere the fine promises of June were nowhere fully realized except perhaps in the wheat and barley harvests of Ontario. In Manitoba, Saskatchewan and Alberta, which are now the chief grain growing provinces of the Dominion, growth was arrested first by a want of sufficient rain, and later as the ripening stage approached by lower temperature and in a few localities by actual frost. Yet on the whole the harvest was fairly good in all the provinces, and the final reports of field crops at the end of November showed a value of \$432,534,000 taken from 27,505,663 acres. It is almost certain, however, that the actual value exceeded this sum, as prices went steadily up after the close of lake navigation.

The wheat, oats and barley grown on 16,297,100 acres, gave an estimated value of \$209,070,000; the rye, peas, buckwheat, mixed grains and flax grown on 1,525,750 acres, a value of \$23,044,000; the hood or cultivated crops of beans, potatoes, turnips and other roots, together with corn for husking and sugar beets, grown on 1,212,143 acres, a value of \$66,754,000, and the hay and clover and fodder corn grown on 8,470,670 acres, a value of \$133,666,000.



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Fall wheat, which is chiefly produced in Ontario and Alberta, had an average yield of 24.40 bushels per acre; spring wheat, 16 bushels; oats, 31.64 bushels, and barley, 26.79 bushels.

In Prince Edward Island the value of all field crops in the year was \$9,408,000; in Nova Scotia, \$20,084,000; in New Brunswick, \$18,042,000; in Quebec, \$80,896,000; in Ontario, \$185,308,000; in Manitoba, \$66,660,000; in Saskatchewan, \$37,614,000, and in Alberta, \$14,522,000. No figures are available for British Columbia. The average value of field crops for the Dominion in the year is \$15.72 per acre, and the average value computed on an estimated population of 6,940,000 at July 1, is \$62.32 per head.

The number of horses in the Dominion at the end of June last year was 2,118,165; of milch cows, 2,917,746; of other cattle, 4,629,836; of sheep, 2,831,404, and of swine, 3,369,858, being increases in every kind except the last named over the numbers for the previous year. The total value of farm animals is given as \$531,000,000.

As evidence of the rapid growth of the Northwest prairie provinces, it may be stated that at the end of June, 1906, when the last government census was taken, the number of farms was 122,398, and that at the end of December, 1908, the homesteads entered in the interval less all cancellations increased the number to 190,234, or by 10,853,760 acres. It may be stated also that the quantity of wheat inspected in the three provinces for the eight months of the harvest year 1908 exceed the quantity inspected for the same period of the preceding year by 20,532,280 bushels.

## HEALTH OF ANIMALS BRANCH.

In this branch of my department the year just past has been a very busy one, although, fortunately, the extra pressure has not been due to any serious or widespread outbreak of disease within our borders.

What may be termed the ordinary duties of the staff, namely, the work of controlling animal diseases with a view to their ultimate eradication, that of maintaining a strict quarantine against the introduction of infection from other countries, and that of research and experiment, have all been carried on in a satisfactory and effective manner.

The details of the work performed in these various lines are briefly dealt with below, and will be found fully set forth in the report of the Veterinary Director General and Live Stock Commissioner, which is now issued as a separate publication.

The recently added Meat Inspection Division of this branch has been still further developed and enlarged, and many of the initial difficulties having been overcome, it is settling down to the conscientious performance of a new line of public duty, the need for which becomes more and more apparent as time goes on and the actual conditions of the trade become known.

During the early winter a heavy strain was imposed on the branch by the occurrence of serious outbreaks of Foot and Mouth disease in several of the United States.



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Unfortunately, two of these outbreaks took place in New York and Michigan, respectively, and in each case in territory lying in immediate proximity to the Canadian frontier. The disease existed to an alarming extent in that portion of New York lying along the Niagara river, while in Michigan it was equally threatening in the district adjacent to the Detroit river.

Foot and Mouth disease is one of the most contagious of known maladies, and one transmissible to a remarkable degree by indirect channels of many different kinds. It is therefore all the more gratifying to be able to report that owing to the prompt and energetic measures adopted by the officers of this branch, and to their untiring vigilance, the infection has been entirely excluded, and that not a single case has occurred in the Dominion, although a serious outbreak was detected and dealt with by the United States authorities on Grand island in the Niagara river.

The success with which this great national danger has been met and averted is, in itself, an ample justification of the continuous and strenuous efforts which have during recent years been devoted to the building up of an able and effective veterinary sanitary service.

It has not been found necessary in the past year to erect any new quarantine stations, nor have any changes been made in the quarantine regulations, except, of course, during the period in which Foot and Mouth disease has existed in the United States. On the facts being ascertained, it was deemed advisable to prohibit entirely the entry of live stock of any kind which had originated in or passed through the states of New York, Michigan, Pennsylvania, New Jersey, Maryland and Delaware, as also of hay, straw, other fodder or manure from these states. As the disease has been brought under control by the United States authorities, the restrictions have been gradually modified, and unless something unforeseen occurs will soon be entirely removed.

Precautions were also taken to safeguard the reputation of our Canadian cattle in Europe by forbidding their shipment from United States ports, or on vessels which had within twenty-one days previous called at any port in an infected state. Vessels carrying live stock of United States origin from ports on the Atlantic coast were also interdicted from entering Canadian ports. These restrictions have now also been almost entirely superseded by the ordinary regulations.

The campaign against glanders is still being persistently and successfully carried on. Although, especially in the prairie provinces, the disease is still giving a good deal of trouble, it is slowly but surely being stamped out.

While more horses have been tested with mallein this year than ever before, the number destroyed is smaller by 343 head, and the amount of compensation has decreased by the sum of \$29,481.77.

Fresh centres of infection are still occasionally created by horses from the United States, for, although danger from this source has been greatly lessened by the adoption of the policy of testing all imported horses, it is scarcely possible to detain all settlers at ports of entry for this purpose.



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The method followed by our immigration officers, in conjunction with the railway authorities, tend to bring the new settlers to the boundary in large numbers on certain fixed days. As a result, it is practically impossible to hold them all, and a certain proportion of horses are therefore permitted to proceed to destination points to be tested after arrival there. In this way some few animals affected with the disease in a latent form occasionally gain access to the country, and until followed up and tested constitute a more or less serious danger to any horses with which they may come in contact.

In the eastern provinces and in British Columbia, however, the disease has been, to all appearance, brought under effective control.

A new policy has been adopted in dealing with mange among cattle in the area in which that disease exists in Alberta and Saskatchewan. The enforcement of the compulsory dipping order having been instrumental in eradicating the affection in many isolated districts of varying extent, and having also served a good purpose in rousing the stockmen to the necessity of active measures in providing facilities for dipping and in other ways, it was thought best to substitute for it the less burdensome policy of close inspection and prompt treatment of all animals actually affected and of those found to be or to have been in contact with them.

The new method is working well, and it is universally admitted by stockmen that there is now much less mange in the range country than at any time during the last fifteen years.

The efforts made to stamp out the disease of horses known as Dourine or *Maladie du Coût* have also been attended with gratifying success. Very few new cases have been discovered during the year, and there is every reason for the belief that the disease has been brought under control and that it will shortly be entirely eradicated.

Owing to its exceedingly treacherous and erratic nature, however, and to the great difficulty attending its diagnosis, it will undoubtedly be necessary, for some time to come, to watch very closely all the horses in the districts where its presence has been detected. The strict supervision maintained over the movement of horses has apparently been effectual in preventing its spread to other localities, as no new centres of infection have been discovered.

At the branch laboratory maintained in connection with the quarantine station at Lethbridge, research work is still being carried on in the hope of discovering either a curative agent, an effective prophylactic or at least a reliable means of diagnosis. So far, however, the results of this work are altogether disappointing except for the discovery and identification in 1907 of the specific trypanosome, fixing conclusively for the first time on this continent, the identity of the disease.

For many years cattle in some districts of British Columbia have suffered from recurrent outbreaks of a disease known locally as red-water. *Maladies* of this class have almost invariably been found to be due to the presence in the blood stream of a specific parasite generally transmitted through the bite of some species of tick which, living on the skin of the animal, acts as an intermediary host for the micro-organism



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producing the disease. With the aim of securing definite information, a highly skilled and experienced veterinary pathologist has during the past year been engaged in making a thorough investigation into the nature of the disease and its cause. Although such progress has been made as to render it practically certain that the causal agent of red-water in British Columbia is a blood parasite having for intermediate host one or other of several species of tick, the knowledge obtained is not yet of a sufficiently definite nature to warrant my taking action upon it.

The investigation will, however, be continued, and it is hoped will in the near future be productive of satisfactory results.

Although several isolated outbreaks of hog cholera occurred in Ontario last summer and a few cases have also been dealt with in British Columbia, there has been no recurrence of the disease in those districts of western Ontario where it was formerly so firmly established. With one exception, in which the infection could not be traced, the outbreaks in Ontario undoubtedly owe their origin to the transit trade in United States hogs, while those in British Columbia were traceable to importation from south of the line.

Owing to the fact that the herds in which the disease made its appearance were exceptionally large, and that one of them consisted entirely of valuable pure bred animals, the expenditure for compensation shows a slight increase over that of the last few years. This, however, is incidental, and due only to the exceptional circumstances above mentioned.

Several outbreaks of sheep scab were detected and dealt with in the early part of last season. The disease was in all cases limited in extent, and as active measures were adopted no great difficulty was experienced in securing its eradication.

All the premises on which it was found have been repeatedly visited and inspected, and with the exception of one small flock in the county of Simcoe, which is still being held for treatment, there is now no evidence of its existence in any part of the Dominion.

I regret to say that rabies has, during the past year, repeatedly made its appearance in Ontario, a number of dogs and other animals bitten by them having been affected. Several human beings were also bitten, but by the prompt application of the Pasteur treatment, the disease was in every case arrested, and no bad results, so far as I have been able to ascertain, followed the exposure to infection.

The disease has, without doubt, entered Canada from the state of New York, where it has been known to exist for a considerable time, and where it was, last year, unusually prevalent.

On one occasion an outbreak was traced to a dog which came across the Suspension bridge at Queenston, bit several animals on the Canadian side, and returned to its own country, without being suspected at the time.

Another outbreak at Red Deer, Alberta, was found on investigation to be due to a dog taken from Hamilton, Ontario, where a number of cases have since been discovered and dealt with.



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The disease is apparently progressing gradually across the western peninsula of Ontario, but will, unless checked by exceedingly stringent measures, undoubtedly extend to the rest of the province, and eventually to the whole Dominion.

In this connection it is worthy of note that in the provinces of Manitoba and Saskatchewan, where the country is more sparsely settled and dogs are less numerous, the outbreaks which took place in 1907 were effectually stamped out by my officers.

The origin of neither of these outbreaks could be traced, but there is every likelihood that the disease was brought in by dogs accompanying settlers from the United States, as no authentic cases have been known to occur in Canada previous to the last two years.

Rabies was stamped out in Great Britain by the enforcement of strict muzzling orders extending over lengthy periods, and the adoption of an inflexible regulation requiring the isolation for six months of all dogs imported. Such a policy is practically impossible in Canada, with her lengthy land boundary and her free intercourse with the United States.

It is evident, however, that unless rabies is to be permitted to spread through the entire country, some specially stringent restrictions will have to be placed on the movement of dogs.

Anthrax is still occasionally reported from various parts of the country, most of the outbreaks being, as usual, in eastern Ontario. This disease has now, however, apparently largely lost its terrors since the more general adoption, in addition to the ordinary precautions, of the system of preventive inoculation.

For this disease and Black Quarter the preventive vaccines are prepared in the biological laboratory connected with the branch. They are supplied to stock owners at the nominal price of five cents per dose, and although fortunately the need for anthrax vaccine is not great, that for the prevention of Black Quarter is in great demand, especially in those districts where, until recently, that malady was of frequent occurrence.

The biological laboratory continues, in this and many other ways, to demonstrate its usefulness and justify its existence. The sums annually saved to the department by the manufacture of mallein and tuberculin are very considerable, but are small in comparison with the benefits conferred on the stock owners of the country. These last not only save much money in being able to purchase reliable vaccines at a nominal cost, but also derive great advantage from the use by our officers in test work of absolutely dependable preparations, and from the accuracy of diagnosis obtainable through the submission of pathological specimens to the specially trained experts of the department.

Conditions with reference to bovine tuberculosis remain practically unchanged. The problem of the control of this disease is unquestionably the most serious now confronting the veterinary sanitarian. Although the energies of all advanced students of comparative medicine have been for many years devoted to its solution, a method of



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dealing with it in a manner at once practicable and effective has yet to be found. One session of the International Congress on Tuberculosis, which was held at Washington in September and October last, devoted itself entirely to bovine tuberculosis, but without reaching any definite conclusion as to the methods most likely to effect its control.

A comprehensive paper on bovine tuberculosis which was, on this occasion, contributed by Dr. Rutherford of my department, and in which the difficulties of the situation were very clearly set forth, has since been extensively republished and reviewed, and has elicited much favourable comment, not only on this continent but in Europe and other parts of the world.

It is to be sincerely hoped that before long a way will be found to effectively check this disease and secure its ultimate eradication. So far, however, all attempts to attain these objects by legislation have been attended with so little success that I have thought it prudent to postpone action in this direction until it is possible to formulate a more definite and promising policy than has yet been proposed or attempted.

The experiment in keeping a tuberculous herd in the open air, which has been in progress since December, 1905, has now been terminated, and its results in detail are in course of publication.

The objects of this experiment, which was of a purely practical nature, were threefold: firstly, to ascertain the effect of open air treatment upon the diseased cattle themselves; secondly, to ascertain to what extent healthy cattle, kept in contact with diseased cattle under open air conditions, are subject to infection; thirdly, to ascertain what percentage of healthy calves it is possible to rear from diseased cows kept without any precautions under open air conditions.

The data obtained indicate that open air life is highly beneficial to tuberculous cattle, and that the danger of the transmission of the disease to adult cattle kept in contact, under these conditions, is very slight. On the other hand, the percentage of healthy calves raised by the diseased cows is, as was to be expected, comparatively small.

These results are interesting in view of the present tendency to consider the digestive tract the most frequent channel of infection. While the experiment above outlined assists in proving that young animals can be and are most frequently infected through the digestive system, it also indicates that, in the case of adults, infection through the air passages plays an important part.

There is little doubt that had the healthy cattle in this experiment been kept under ordinary stable conditions with their diseased companions, they would not have escaped as they did.

The meat inspection service inaugurated in September, 1907, has been further developed and more fully organized. Its operations are, of course, still limited to establishments engaged in export or interprovincial trade, but the high standard of inspection set by my officers has attracted much favourable public comment, and there



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is little doubt that similar measures will soon be adopted by the local authorities of many of the principal communities throughout the country.

It is gratifying to be able to report that, although suffering from a marked depression in the export trade, which naturally makes the losses from a close inspection more keenly felt, the packers almost without exception show the greatest loyalty to the department, and co-operate heartily with my officers in carrying out the requirements of the Meat and Canned Foods Act.

This measure also applies in a more limited degree to fruits and vegetables when those are put up or prepared for export or interprovincial trade. While many of the factories engaged in canning or otherwise preserving fruits and vegetables were found to be under modern sanitary conditions, my officers found that in a number of others, there was much room for improvement in this and other respects. In most cases of this kind, however, but little difficulty was experienced by the inspectors, specially detailed to this line of work, in convincing those in charge of the establishment that it would be to their advantage, immediate and ultimate, to comply with the provisions of the law. As a result, a marked improvement in methods and conditions, as well as, in some cases, in the materials used has been brought about, to the great advantage of producer, packer, retailer, and last, but not least, consumer.

## ARCHIVES BRANCH.

The work of development and organization in this branch has continued during the past year. Many important additions have been made to the Archives, a full report of which is given in the appendix to this volume. (See Appendix No. 18.)

## III.—PATENTS OF INVENTION.

The following tables show the transactions of the Patent Branch of the Department of Agriculture from April 1, 1908, to March 31, 1909:—

| Applications<br>for<br>Patents. | PATENTS AND CERTIFICATES GRANTED. |               |        | Caveats. | Assessment<br>of<br>Patents. | Notices<br>under<br>Section 8. |
|---------------------------------|-----------------------------------|---------------|--------|----------|------------------------------|--------------------------------|
|                                 | Patents.                          | Certificates. | Total. |          |                              |                                |
| 7,239                           | 6,395                             | 827           | 7,222  | 319      | 3,001                        | 713                            |



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DETAILED STATEMENT, Patent Office Fees.

| Month.       | Patents.   | Assignments. | Copies.  | Caveats. | Sundries. | Subscriptions. | Notices. | Total.     |
|--------------|------------|--------------|----------|----------|-----------|----------------|----------|------------|
| 1908.        | \$ cts.    | \$ cts.      | \$ cts.  | \$ cts.  | \$ cts.   | \$ cts.        | \$ cts.  | \$ cts.    |
| April .....  | 14,203 00  | 519 50       | 197 47   | 143 00   | 0 25      | 131 10         | 112 25   | 15,306 57  |
| May.....     | 15,317 45  | 533 03       | 120 90   | 150 00   | 11 75     | 64 30          | 148 00   | 16,345 43  |
| June.. ....  | 13,939 85  | 555 65       | 154 20   | 155 00   | .....     | 37 70          | 134 00   | 14,976 40  |
| July. ....   | 13,773 70  | 469 70       | 141 85   | 135 00   | 4 50      | 24 60          | 141 00   | 14,690 35  |
| August.....  | 13,000 25  | 552 00       | 144 60   | 105 00   | 5 75      | 5 90           | 111 75   | 13,925 25  |
| September..  | 11,560 25  | 570 25       | 161 60   | 130 00   | 7 30      | 7 90           | 94 00    | 12,531 30  |
| October..... | 12,461 00  | 486 70       | 130 06   | 180 00   | 2 25      | 7 85           | 81 00    | 13,348 86  |
| November...  | 11,923 70  | 508 50       | 172 15   | 110 00   | 6 00      | 19 80          | 129 00   | 12,869 15  |
| December...  | 14,130 60  | 687 85       | 223 46   | 120 00   | 12 00     | 24 33          | 87 25    | 15,285 49  |
| 1909.        |            |              |          |          |           |                |          |            |
| January .... | 13,802 25  | 610 50       | 239 45   | 145 00   | 6 00      | 31 30          | 128 00   | 14,962 50  |
| February...  | 13,003 75  | 483 50       | 151 65   | 210 25   | 13 00     | 13 10          | 106 25   | 13,981 50  |
| March.....   | 17,204 90  | 612 75       | 217 00   | 230 00   | 13 50     | 38 10          | 153 00   | 18,469 25  |
|              | 164,320 70 | 6,589 93     | 2,054 39 | 1,813 25 | 82 30     | 405 98         | 1,425 50 | 176,692 05 |

The Canadian patentees were distributed among the provinces of the Dominion as follows:—

| Ontario. | Quebec. | Manitoba. | British Columbia. | Nova Scotia. | New Brunswick. | Saskatchewan. | Alberta. | Prince Edward Island. | Yukon. |
|----------|---------|-----------|-------------------|--------------|----------------|---------------|----------|-----------------------|--------|
| 467      | 205     | 71        | 51                | 24           | 18             | 32            | 28       | 3                     | 4      |

Patents issued to residents of Canada, with the ratio of population to each patent granted:—

| Provinces.                  | Patents. | One to every |
|-----------------------------|----------|--------------|
| Ontario .....               | 467      | 4,769        |
| British Columbia.....       | 51       | 5,095        |
| Manitoba .. .....           | 71       | 5,535        |
| Alberta .....               | 28       | 7,979        |
| Quebec .....                | 205      | 8,575        |
| Saskatchewan.....           | 32       | 9,914        |
| Territories and Yukon ..... | 4        | 17,945       |
| New Brunswick.....          | 18       | 18,746       |
| Nova Scotia. ....           | 24       | 19,391       |
| Prince Edward Island .....  | 3        | 33,668       |



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## Patents issued to citizens of foreign countries:—

| Countries.                    | Patents. | Countries.                      | Patents. |
|-------------------------------|----------|---------------------------------|----------|
| United States of America..... | 4,602    | Russia .....                    | 4        |
| Great Britain .....           | 346      | Norway .....                    | 9        |
| Germany.....                  | 215      | Newfoundland .....              | 1        |
| Australia .....               | 58       | Japan .....                     | 1        |
| France.....                   | 59       | Mexico.....                     | 4        |
| New Zealand.....              | 36       | Netherlands .....               | 4        |
| Sweden .....                  | 40       | Argentine .....                 | 4        |
| Belgium .....                 | 17       | Cape Colony .....               | 1        |
| Austria.....                  | 33       | Portugal .....                  | 1        |
| Italy.....                    | 10       | Chili .....                     | 1        |
| Switzerland.....              | 11       | Roumania .....                  | 1        |
| Denmark.....                  | 8        | Russian Poland .....            | 3        |
| Transvaal.....                | 12       | Finland .....                   | 1        |
| Hungary.....                  | 5        | Grand Duchy of Luxembourg ..... | 1        |
| Spain .....                   | 2        | Panama (Canal Zone) .....       | 2        |

Statement of the number of patents issued under the Act, on which the fees are paid for periods of six, twelve or eighteen years, at the option of the patentee; and of patents on which the certificates of payments of fees were attached after the issue of patents originally granted for periods of six and twelve years.

| Period for which Fees were paid on First Issue. |           |           | Patents on which Certificates were attached after issue. |           | Reissues. |
|---|-----------|-----------|--|-----------|-----------|
| 6 years.  | 12 years. | 18 years. | 6 years.   | 12 years. |           |
| 6,368   | 5         | 15        | 803  | 24        | 7         |

The total revenue of the Patent Office for the year ended March 31, 1909, was \$176,692.05.

The total number of reports issued by the examiners during the year was 9,794, and seven patents were surrendered and reissued.

Out of the total number of patents granted by this office during the year, there were 4,602 issued to inventors, or assignees, resident in the United States, being 72 per centum of the whole issue.

This branch of my department continues to receive the official reports of patents from Great Britain, Australia, United States, Mexico and Japan, in addition to other periodicals of a scientific nature, in exchange for the Canadian Patent Office Record.

The number of new applications for patents presented during the year was 7,239.

I have again to direct the attention of applicants for patents to the necessity of exercising the greatest care in the preparation of their applications, a work which is generally advantageously performed by patent solicitors not only in Canada but in other countries where patent laws are in active operation.

Patentees, under the instalment plan, who have paid fees for one or more partial terms of their patents, not infrequently postpone payment of the further fees required to keep their patents in force until after the date within which they are payable;



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consequently the patents expire, and it is not in the power of the office to revive them. A revival can only be secured by a private Act of parliament, the obtaining of which entails considerable expense to the patentee. The attention of patentees is therefore again called to the necessity of making their payments in time.

In considering petitions for extensions of time to manufacture or import under sections 39 and 40, the law is applied according to its strict and literal meaning, and the petitions are granted only when the petitioner has clearly established, to the satisfaction of the office, by affidavit or solemn declaration that the failure to manufacture or import is due to no fault of his, but to reasons beyond his control.

The requirements of the law in regard to manufacture have been kept in mind when considering applications from patentees, or their assignees, to have their patents brought under the conditions of section 44 of the Act. (Compulsory Licence System.) The applications which have been granted, numbering 1,092, are those relating to patents for inventions such as the following: Certain patents for an art of process; certain patents for improvements on a patented invention when both patents are not held by the same person; patents for certain appliances or apparatus used in connection with railway, telegraph, telephone and lighting systems, and other works usually under the control of public or large private corporations, and which appliances or apparatus cannot be installed or constructed without the consent of such corporations; and patents for inventions which are manufactured or constructed only to order, and are not, according to custom, carried in stock.

The closing month of the present fiscal year shows a very large increase in the business of the office and in its revenue. The total amount received was \$18,469.25, being the largest receipts for the same period of time in the history of this branch of my department.

#### IV.—COPYRIGHTS, TRADE-MARKS, INDUSTRIAL DESIGNS AND TIMBER MARKS.

Statement of fees received by the Copyright and Trade-mark Branch from April 1, 1908, to March 31, 1909.

| Months.         | Trade<br>Marks. | Copyrights. | Designs. | Timber<br>Marks. | Assign-<br>ments. | Copies. | Total.    |
|-----------------|-----------------|-------------|----------|------------------|-------------------|---------|-----------|
|                 | \$ cts.         | \$ cts.     | \$ cts.  | \$ cts.          | \$ cts.           | \$ cts. | \$ cts.   |
| 1908.           |                 |             |          |                  |                   |         |           |
| April. ....     | 2,551 20        | 111 25      | 140 00   | 2 00             | 20 00             | 23 75   | 2,848 20  |
| May. ....       | 2,524 80        | 88 00       | 130 00   | 2 00             | 30 00             | 69 50   | 2,844 30  |
| June. ....      | 3,010 55        | 130 40      | 42 00    | ....             | 39 50             | 31 00   | 3,253 45  |
| July. ....      | 1,976 40        | 138 85      | 55 10    | 6 00             | 64 00             | 14 50   | 2,254 85  |
| August. ....    | 2,176 25        | 168 00      | 30 00    | 6 00             | 13 00             | 11 75   | 2,405 00  |
| September. .... | 2,900 05        | 146 00      | 160 50   | 28 60            | 320 00            | 30 75   | 3,585 30  |
| October. ....   | 4,314 90        | 129 50      | 40 00    | 12 00            | 8 00              | 11 50   | 4,515 90  |
| November. ....  | 2,725 30        | 107 50      | 44 00    | 16 00            | 30 15             | 23 75   | 2,940 70  |
| December. ....  | 2,462 00        | 178 15      | 65 00    | 10 15            | 79 00             | 24 50   | 2,818 80  |
| 1909.           |                 |             |          |                  |                   |         |           |
| January. ....   | 2,996 05        | 114 00      | 63 00    | 2 00             | 16 00             | 21 25   | 3,218 30  |
| February. ....  | 2,892 80        | 110 25      | 88 50    | 4 25             | 19 75             | 30 25   | 3,145 80  |
| March. ....     | 3,375 15        | 171 35      | 80 40    | 8 00             | 32 00             | 10 50   | 3,677 40  |
| Totals. ....    | 33,905 45       | 1,593 25    | 944 50   | 96 40            | 671 40            | 303 00  | 37,514 00 |



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The particulars of the registrations made by the Copyright and Trade Mark Branch of the Department of Agriculture during the year ended March 31, 1909, are as follows:—

## I. Copyrights—

|   |             |
|---|-------------|
| Full copyrights without certificates.. . . . .      | 1,213       |
| Full copyrights with certificates.. . . . .         | 142         |
| Temporary copyrights without certificates.. . . . . | 6           |
| Temporary copyrights with certificates.. . . . .    | 7           |
| Interim copyrights without certificates.. . . . .   | 26          |
| Interim copyrights with certificates.. . . . .      | 21          |
| Renewals of copyrights.. . . . .                    | 1           |
|   | <hr/> 1,416 |

|  |     |
|--|-----|
| II. Trade Marks.. . . . .                  | 892 |
| Renewals of specific trade marks.. . . . . | 14  |

|                                   |     |
|-----------------------------------|-----|
| III. Industrial Designs.. . . . . | 162 |
| Renewals.. . . . .                | 3   |

|                            |    |
|----------------------------|----|
| IV. Timber Marks.. . . . . | 44 |
|----------------------------|----|

|                          |     |
|--------------------------|-----|
| V. Assignments.. . . . . | 343 |
|--------------------------|-----|

Total registrations.. . . . . 2,874

The following table shows a comparative statement of the business of this branch from 1897 to 1908, inclusive:—

| Year.         | Letters<br>Received. | Letters<br>Zinc. | Copyrights<br>Registered. | Certificates of<br>Copyrights. | Trade Marks<br>Registered. | Industrial<br>Designs<br>Registered. | Timber Marks<br>Registered. | Assignments<br>Registered. | Fees<br>Received. |
|---------------|----------------------|------------------|---------------------------|--------------------------------|----------------------------|--------------------------------------|-----------------------------|----------------------------|-------------------|
|               |                      |                  |                           |                                |                            |                                      |                             |                            | \$ cts.           |
| 1897. . . . . | 2,606                | 3,548            | 753                       | 273                            | 415                        | 75                                   | 13                          | 94                         | 14,101 93         |
| 1898. . . . . | 2,576                | 3,453            | 734                       | 275                            | 423                        | 136                                  | 15                          | 114                        | 13,535 17         |
| 1899. . . . . | 2,487                | 2,910            | 702                       | 277                            | 430                        | 112                                  | 5                           | 117                        | 11,161 28         |
| 1900. . . . . | 2,679                | 3,213            | 804                       | 247                            | 447                        | 125                                  | 22                          | 136                        | 14,782 53         |
| 1901. . . . . | 2,605                | 3,211            | 888                       | 249                            | 521                        | 146                                  | 24                          | 183                        | 16,823 26         |
| 1902. . . . . | 2,687                | 3,257            | 900                       | 196                            | 528                        | 164                                  | 26                          | 222                        | 17,703 09         |
| 1903. . . . . | 2,687                | 3,211            | 900                       | 176                            | 557                        | 88                                   | 23                          | 272                        | 18,086 25         |
| 1904. . . . . | 2,858                | 3,293            | 1,106                     | 228                            | 621                        | 197                                  | 25                          | 118                        | 20,647 30         |
| 1905. . . . . | 3,167                | 3,902            | 1,130                     | 189                            | 661                        | 139                                  | 22                          | 154                        | 23,706 77         |
| 1906. . . . . | 5,349                | 5,193            | 1,228                     | 169                            | 1,119                      | 125                                  | 47                          | 282                        | 33,107 13         |
| 1907. . . . . | 4,475                | 4,353            | 1,240                     | 175                            | 848                        | 182                                  | 33                          | 135                        | 30,073 29         |
| 1908. . . . . | 6,647                | 4,980            | 1,416                     | 170                            | 892                        | 162                                  | 44                          | 343                        | 37,514 00         |



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## V.—PUBLIC HEALTH AND QUARANTINE.

The usual threatenings of infectious diseases from the Orient and from Europe, South America, &c., have continued since my last report. Strict measures, ordinary and special, have therefore been applied by me for the sanitary protection of the country. Circular letters of warning and instruction were issued from time to time to the regular quarantine officers; and to the customs officers, who are also ex-officio quarantine officers, at the unorganized maritime and frontier ports.

The Sixth Triennial Meeting of the International Congress on Tuberculosis, was held in the United States capital from September 28 to October 3 last. I had pleasure in arranging that three delegates from this Dominion should represent the government at this great international congress. There were thirty-three countries officially represented, and more than six thousand delegates present.

Although there have been no actual cases of bubonic plague amongst human beings on this continent during this year, fatal cases of rat plague have continued. In San Francisco the last case of rat plague was on October 23 last; in Oakland, California, on December 1 last; and in Seattle, Washington, on September 26 last.

In view of the lapse of time since the last cases of human plague had occurred in San Francisco and Seattle, the special inspection of passengers and crews from Californian and Puget Sound ports was removed by me on October 7 last. Measures for excluding rats, such as breasting vessels away from the piers, guarding mooring ropes by discs, limiting and guarding gangways, &c., are still, however, maintained.

The bubonic plague has occurred during the year in Australia, the Azores, Brazil, China, Ecuador, Egypt, England (Liverpool), East Africa (British and German), Formosa, Hawaii, India, Japan, Mauritius, Peru, Queensland, Russia, Venezuela and Zanzibar.

Asiatic cholera has occurred during the year in Arabia, Australia, Ceylon, China, India, Japan, Korea, Persia, Philippine islands, Russia, Siam, Straits Settlements, Turkey in Asia and Turkey in Europe. There was a sharp outbreak of this disease in Russia in July and August last, extending to St. Petersburg in September. Special care, therefore, was enjoined by me in the quarantine inspection of vessels arriving from Europe.

The temporary medical inspectors for smallpox on duty at the beginning of the year on the frontier south of western Ontario and Manitoba, were released from duty on August 15 last; the outbreak of smallpox in the neighbouring States having died down.

Owing to a reported outbreak of this same disease in Newfoundland, I suspended the order excepting, under section 7 of the Quarantine Regulations, vessels from Newfoundland and free from infectious disease; and on January 27 a circular letter was sent to my quarantine officers on the Atlantic coast, ordering the routine and careful inspection of all vessels from that island. This inspection is still in force.



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In addition to the appearance of yellow fever in its accustomed haunts, it has occurred this year in Barbados. A circular letter to my Atlantic coast officers, drawing attention to this fact, was issued on February 17.

During this year four new cases of leprosy have occurred or were discovered in Canada. They were dealt with by me under the Act respecting leprosy. Two of the cases, which were found in New Brunswick, were removed to the Lazaretto at Tracadie in that province. The two other cases were Chinese, one found in Manitoba, the other in British Columbia. They were both, with their full approval, deported and sent back to China. They had both been some time in Canada before the disease appeared.

The diseases which have been brought to my maritime quarantine stations during this year, and stamped out there, are: Smallpox, beri-beri, diphtheria, scarlet fever, enteric fever, measles and chickenpox.

I have appointed Dr. Ernest H. Truwayne in medical charge of the quarantine of the port of Prince Rupert.

My department has lost an old and faithful officer, in the death of Dr. A. C. Smith, of Tracadie, which occurred at his home there on the 12th of this month, after some forty-four years of service to his country and to the lepers.

## VI.—CENSUS AND STATISTICS.

The Canada Year Book, 1907, being the third volume of the second series, was published early in the year. The principal addition to the usual contents was a series of summary tables of the field crops and live stock of eastern Canada compiled from the postal census taken in 1907. The tables for the Year Book of 1908 have been compiled and the book is now passing through the press.

The report on the Criminal Statistics of 1907 has been issued, and the report for 1908 is now being prepared.

In June the Census and Statistics office commenced the issue of reports on the condition of the crops and live stock of Canada, such reports being based upon data collected voluntarily from practical agricultural correspondents in all parts of the Dominion. The condition of the principal crops during their season of growth and of live stock, expressed for all Canada and for each province by a system of numerical percentages, was reported upon monthly from June 30 to August 31; preliminary estimates of the yield of the principal crops were issued on August 31 and September 30; and on November 30 final estimates were published based upon actual thrashing returns. Estimates of the value of the principal crops, of the wages of farm help, of stocks in farmers' hands, and of areas ploughed and seeded were also compiled from the returns of correspondents, carefully compared with other available data, and the results published as they became available.



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The general results of the harvest as ascertained at the end of November were published in December, and they are summarized in the following table:—

| Crops.                       | Area.     | Yield<br>per acre. | Total yield. | Weight per<br>measured<br>bushel. | Average<br>price per<br>bushel. | Total value. |
|------------------------------|-----------|--------------------|--------------|-----------------------------------|---------------------------------|--------------|
|                              | ac.       | bu.                | bu           | lb.                               | \$                              | \$           |
| Fall wheat.....              | 770,400   | 24.40              | 18,798,000   | 60.30                             | 0.860                           | 16,253,000   |
| Spring wheat.....            | 5,839,900 | 16.03              | 93,636,000   | 58.51                             | 0.800                           | 74,975,000   |
| Oats.....                    | 7,941,100 | 31.64              | 250,377,000  | 35.47                             | 0.390                           | 96,489,000   |
| Barley.....                  | 1,745,700 | 26.79              | 46,762,000   | 42.02                             | 0.460                           | 21,353,000   |
| Rye.....                     | 100,350   | 17.05              | 1,711,000    | 55.58                             | 0.740                           | 1,262,000    |
| Peas.....                    | 412,900   | 17.09              | 7,060,000    | 57.25                             | 0.850                           | 5,970,000    |
| Buckwheat.....               | 291,300   | 24.55              | 7,153,000    | 47.49                             | 0.590                           | 4,215,000    |
| Mixed grains.....            | 581,900   | 32.73              | 19,049,000   | 45.25                             | 0.530                           | 10,140,000   |
| Flax.....                    | 139,300   | 10.76              | 1,499,000    | 54.23                             | 0.970                           | 1,457,000    |
| Beans.....                   | 60,100    | 27.00              | 1,245,000    | 59.18                             | 1.590                           | 1,988,000    |
| Corn for husking.....        | 366,200   | 62.45              | 22,872,000   | 59.59                             | 0.520                           | 11,837,000   |
| Potatoes.....                | 503,600   | 132.00             | 73,790,000   |                                   | 0.470                           | 34,819,000   |
| Turnips and other roots..... | 271,443   | 373.00             | 101,248,000  |                                   | 0.170                           | 17,532,000   |
|                              |           | tons               | tons         |                                   | per ton                         |              |
| Hay and clover.....          | 8,210,900 | 1.39               | 11,450,000   |                                   | 9.960                           | 121,884,000  |
| Fodder corn.....             | 259,770   | 11.27              | 2,928,000    |                                   | 4.030                           | 11,782,000   |
| Sugar beets.....             | 10,800    | 10.07              | 109,000      |                                   | 5.310                           | 578,000      |

According to the data collected from correspondents on June 30, the numbers of live stock in Canada were then as follows: Horses, 2,118,165; milch cows, 2,917,746; other cattle, 4,629,836; sheep, 2,831,404, and swine, 3,369,858.

Summaries of the monthly reports have been communicated to the press as soon as available, and the complete results have been given in a new publication of the department entitled, *The Census and Statistics Monthly*, the first number of which appeared in July. In addition to the special reports on the crops and live stock of Canada, this monthly has also included notes on the work of the various branches of the Department of Agriculture, crop reports from other countries, prices of agricultural produce in British markets, reports of the proceedings of agricultural scientific gatherings and miscellaneous statistical information relating to agriculture.

A census of the manufacture of butter, cheese and condensed milk in Canada for the calendar year 1907 was taken through the post during 1908, the form of schedule used for the purpose having been passed by order in council on January 17. The results were published as Bulletin VII. of the Census and Statistics office, entitled *Dairy Production, 1907*, and the statistics of this bulletin were compiled from the returns of 3,516 butter and cheese factories and seven factories producing condensed milk and cream. The value of land, buildings and plant was returned as \$8,561,140, and of working capital as \$1,641,787. The number of persons employed in factories during the year 1907 was 6,586, and the amount paid for salaries and wages was \$1,811,875. The quantity of butter made in factories during 1907 was 45,930,294 lbs., with a value of \$10,949,042; the quantity of cheese made was 204,788,583 lbs., with a value of \$23,597,639; and the quantity of condensed milk and cream made was 12,176,135 lbs., with a value including all products of condenseries of \$910,842. The value of all dairy products at factories was \$35,457,513 in 1907, \$33,257,674 in 1905 and



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\$29,731,922 in 1900. This was a gain at the average rate of 11.86 per cent in the five years 1900 to 1905, of 6.61 per cent in the two years 1905 to 1907, and of 19.26 per cent in the seven years 1900 to 1907. Owing to the drought prevailing in some localities the dairying season of 1907 was not a good one and production was short.

Three other bulletins of the Census and Statistics office were issued during the year. Bulletin VI. is a report on the immigrants of the agricultural class in the Northwest provinces, 1891-1906, and includes tables compiled from the returns of the Northwest census of 1906. The chief purpose of the tables is to show for groups of years the live stock held and the land occupied and in crops of the immigrants on the land in 1906 by two classes, viz., (1) country of origin, and (2) principal occupation before arrival in Canada. Bulletin VII., entitled Longevity and Sanitation, comprises two papers on the length of life and the health of the people, these being the substance of two addresses delivered by the Chief Officer before the McMaster University Convocation and the American Public Health Association. Bulletin IX. embodies the results of a personal investigation by the Chief Officer into the production of sugar beet in Canada and the manufacture of the roots into refined sugar. It includes also two appendices: A, consisting of the Hearings of the Customs Tariff Committee, 1905, not previously printed; and B, Beet Sugar Production in Posen, Germany.

The whole is respectfully submitted.

SYDNEY A. FISHER,  
*Minister of Agriculture.*







# PUBLIC HEALTH.

## No. 1.

### REPORT OF THE DIRECTOR GENERAL OF PUBLIC HEALTH.

(F. MONTIZAMBERT, I.S.O., M.D.Ed., F.R.C.S.E., D.C.L.)

March 31, 1909.

SIR,—I have the honour to submit this my report as Director General of Public Health for the year ending this day.

The usual threatenings of infectious diseases from the Orient and from Europe, South America, &c., have continued since my last report.

Strict measures, ordinary and special, have therefore been approved by you for the sanitary protection of the country.

Circulars of warning and instruction were issued from time to time to the regular quarantine officers, and to the customs officers, who are also ex-officio quarantine officers, at the unorganized maritime and frontier ports.

On June 18, I left for inspection of the Leper Lazaretto at Tracadie, N.B., and the quarantine stations at Chatham and St. John, N.B., Halifax, Sydney and Louisburg, N.S., Charlottetown, P.E.I., the quarantine buildings at Pictou, N.S., and the station at Grosse Isle in the River St. Lawrence.

On August 5, I left for the inspection of the stations on the Pacific coast, Vancouver and Victoria. Before returning, I visited Seattle, to confer with the United States health authorities in connection with the outbreak of bubonic plague there. I also visited Edmonton to confer with the secretary of the Provincial Board of Health of Alberta, and arranged to meet the secretary of the Provincial Board of Saskatchewan at Winnipeg, to which place he was going to attend the annual meeting of the American Public Health Association. I waited over at Winnipeg for the meeting.

On September 3, I left for Grosse Isle, having been delegated as a Companion of the Imperial Service Order to publicly present, in the name of His Majesty the King, the medal of the Order conferred by His Majesty upon Mr. Jean Baptiste Turcotte, an old and recently superannuated employee, in recognition of his long and faithful services. The investiture was, in accordance with my instructions, carried out on the scene of his labours, and before a full gathering of his former fellow employees.

On September 26, I left for Washington, having the honour, as senior official delegate, to represent the Government of the Dominion of Canada at the Sixth Triennial Meeting of the International Congress on Tuberculosis, held in the United States capital from September 28 to October 3.

Over six thousand delegates registered, from thirty-three different countries. These included fifty from Canada.

The congress was opened in the Assembly Hall of the New Museum building, which has a seating capacity of four thousand, and in which even standing room was not available at the opening and closing ceremonies. On both of these occasions, Secretary of the Treasury Cortelyou presided, representing the President; and at the closing meeting the President himself appeared and delivered an address.



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In addition to the United States, the countries represented were:—

Argentina, Austria, Belgium, Canada, Chili, Costa Rica, Cuba, China, Denmark, Ecuador, England, Scotland and Ireland, France, Germany, Greece, Guatemala, Holland, Italy, Japan, Mexico, Norway, Panama, Hungary, Portugal, Roumania, Russia, Spain, Sweden, Siam, Switzerland and Uruguay.

Amongst those from foreign countries may be included the following, whose names are particularly connected with the work in relation to tuberculosis:—

Dr. Arloing, Faculty of Medicine, Lyons, France.

Dr. J. George Adami, Professor of Pathology, McGill University, Montreal.

Dr. Bernard Bang, Professor of Veterinary Pathology of the Royal Veterinary School of the University of Copenhagen.

Dr. Buhre, Sweden.

Dr. Calmette, (Professor A.) Pasteur Institute, Paris, France.

Dr. Camillo Calleja, Madrid, Spain, representing the Spanish Government.

Dr. Detre, Budapest.

Dr. Eastwood, Cambridge University, England.

Dr. Johannes Fibiger, Professor of Pathological Anatomy at the University of Copenhagen.

Dr. Lawrence F. Flick, Philadelphia.

Dr. Karl Hamel, representing the Imperial Board of Health, Berlin.

Dr. Heyman, Professor at the University of Ghent, Belgium.

Dr. Ladislaus Hengelmüller von Hemgervar, Chief Delegate, Vienna.

Dr. Joaquin Jacobson, Havana.

Dr. Robert Koch, Berlin.

Dr. G. von Leube, of the University of Munich.

Dr. E. Liceaga, representative of Mexico.

Dr. Louis Landouzy (Professor), Leader of the French Delegation.

Dr. Newsholme, of England.

Dr. Clemens von Pirquet, Vienna.

Dr. R. W. Philip, Edinburgh, Scotland, representing the University of Edinburgh and the Royal College of Physicians of Edinburgh.

Dr. Leonard Pearson, of Philadelphia.

Dr. M. Ravenel, of Madison, Wisconsin.

Dr. Antonio Stella, Italy, representing the General Director of Public Health.

Dr. T. J. Stafford, Ireland.

Dr. Theobald Smith, of Boston.

Dr. Diego Tamayo, Cuba.

Dr. S. Trimescu, Bucharest, representative of the Roumanian Government.

Dr. N. P. Tendeloo, Professor of Pathology at the University of Leyden, Holland.

Dr. John J. Ulloa, Costa Rica.

Dr. A. A. Wladimiroff, representative of the Superior Medical Council of the Russian Empire.

Dr. Theodore Williams, of the Southwest London Association for the Prevention and Relief of Tuberculosis.

Dr. Sims Woodhead, Professor of Pathology at Cambridge University, England.

Dr. F. C. Yen, official delegate from China.

Many interesting papers were submitted, and many interesting addresses delivered and discussions taken part in.

As possibly of exceptional interest, I may cite the system presented to the congress and illustrated by examples, by Dr. Detre, of Budapest, and Dr. von Pirquet, of Vienna, for the diagnosis of tuberculosis in its incipient stages. It consists in the inoculation of the patient's arm at three different points at the same time: first, with Koch's tuberculin; secondly, with a filtrate of a broth culture of human bacillus; and thirdly, with a filtrate of a broth culture of bovine bacillus. Within twenty-four hours, or a little more, the results of the three reactions may be noted. There can be read in-



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stantly which type of bacilli caused reaction; whether the infection is an awakened dormant one or of recent contraction; whether the human organism can resist the attack; in short, all the biological properties of the infected organism.

This system seems to promise to be one of great importance; but, like most new things in science, it will require to be confirmed by repeated experiments by other workers.

Possibly the most interesting matter before the congress, and one that led to the warmest discussion, was Dr. Koch's persistent adherence to his views, announced at the congress in London in 1901, when he stated that while he was not prepared to deny the possibility of the communication of tuberculosis from animals to man, he considered that the probability of this happening through the use of milk or meat was so slight as to be a negligible quantity. In fact, he further stated at this congress that 'the few known cases where bovine tuberculosis is said to have produced a general and fatally progressive tuberculosis in man appear to me not to be above suspicion.' In this view Dr. Koch was opposed practically by all the other scientists present, the opposition being led by Dr. Arloing, Professor of the Faculty of Medicine of Lyons, France, one of the leading authorities on tuberculosis in that country, and by Dr. Ravenel, of Madison, Wisconsin, who has written much upon the subject in the United States. The consensus of opinion against Dr. Koch's views was the origin of the epigram: 'Professor Koch isolated the bacillus tuberculosis; the scientific world has isolated Professor Koch.' One of the resolutions finally adopted as the outcome of the congress as a whole recommended 'that preventive measures be continued against bovine tuberculosis, and that the possibility of the propagation of this to man be recognized.'

In connection with the congress, large and complete exhibits of sanatoria, day camps, night camps, and all the various appliances necessary for the treatment of consumptives, both at home and in institutions, were shown from the following countries, departments and associations:—

Argentina, Austria, Belgium, Brazil, Canada, France, Germany, Great Britain, Hungary, Japan, Russia, Sweden, Switzerland and Uruguay.

Department of the Treasury (Public Health and Marine Hospital Service)

Department of War (Army Medical Department).

Department of the Navy (Bureau of Medicine and Surgery).

Department of the Interior (Indian and Smithsonian).

Department of Agriculture (Bureau of Animal Industry).

Department of Commerce and Labour (Census Office).

Government Printing Office.

States of: Colorado, Connecticut, District of Columbia, Illinois, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New York, Ohio, Rhode Island, Pennsylvania, Wisconsin.

National Association.

Playground Association.

Journal of Outdoor Life.

Pathological exhibit from the Museum of the University of McGill, Montreal.

Plans, &c., of the Tranquille Sanatorium of British Columbia.

Of the seven sections of the congress, I felt it my duty to attend principally section VI., on State and Municipal Control of Tuberculosis. Before it, many valuable papers were read and discussed on the administrative control of tuberculosis, and the duty of general governments in the registration and prevention of the disease, and incidentally in the desirability of federal organization of health, including the suggestion that as hygiene knows no boundaries, a standing national council should be formed to watch and foster the growth of national health departments.

The joint delegate with me, Dr. Rutherford, Veterinary Director General, devoted most of his attention to section VII., 'Tuberculosis in Animals and its Relation to Man'; and our associate delegate, the Reverend Thomas Hunter Boyd, devoted the



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greater part of his attention to section V., 'Social, Industrial and Economic Aspects of Tuberculosis.' These gentlemen will doubtless report to you upon their work in connection with this congress.

A State dinner was given by Secretary of State Mr. Root on the evening of October 1, and your senior delegate had the honour of being present officially thereat; as also in responding for Canada, and conveying for our government their cordial greetings and their farewell at the opening and closing public assemblies respectively.

Dr. Antonio Stella, of Rome, presented to the congress in the name of the King of Italy an invitation to hold the next Triennial meeting of the congress in Rome in 1911, the fiftieth anniversary of the foundation of the National Union of Italy.

The general conclusions of the powers and discussions in all sections seemed to favour the home treatment of consumptives, rather than their being sent away to sanatoria, and to distant health resorts; it being established that the fresh air treatment, with proper diet and rest, could be as satisfactorily carried out at home as elsewhere, and that the home treatment obviated the expense and homesickness incidental to sending patients to distant places; and, in addition, that a cure in the locality where the patient has to live and work is preferable to a cure at a high altitude, from which the return often leads to a recurrence of the disease according to the altered blood pressure at the lower altitudes.

The resolutions formally adopted by the congress were as follows:—

'Resolved: That the attention of state and central governments be called to the importance of proper laws for the obligatory notification by medical attendants, to the proper health authorities, of all cases of tuberculosis coming to their notice, and for the registration of such cases in order to enable the health authorities to put in operation adequate measures for the prevention of the disease.

'Resolved: That the utmost efforts should be continued in the struggle against tuberculosis to prevent the conveyance from man to man of tuberculous infection as the most important source of the disease.

'That preventive measures be continued against bovine tuberculosis, and that the possibility of the propagation of this to man be recognized.

'Resolved: That we urge upon the public and upon all governments the establishment of hospitals for the treatment of advanced cases of tuberculosis; the establishment of sanatoria for curable cases of tuberculosis; the establishment of dispensaries and day and night camps for ambulant cases of tuberculosis which cannot enter hospitals and sanatoria.

'Resolved: That this congress indorses such well-considered legislation for the regulation of factories and workshops, the abolition of premature and injurious labour of women and children, and the obtaining of sanitary dwellings as will increase the resisting power of the community to tuberculosis and other diseases.

'That instruction in personal and school hygiene should be given in all schools for the professional training of teachers.

'That, whenever possible, such instruction in elementary hygiene should be intrusted to properly qualified medical instructors.

'That colleges and universities should be urged to establish courses in hygiene and sanitation, and also to include these subjects among their entrance requirements, in order to stimulate useful elementary instruction in the lower schools.

'That this congress indorses and recommends the establishment of playgrounds as an important means of preventing tuberculosis through their influence upon health and resistance to disease.'

*The Bubonic Plague.*—Special precautions have been observed throughout the year against the danger of the introduction of this disease into Canada from the United States. In San Francisco the last case of human plague was on January 30, 1908; the last case of rat plague on October 23, 1908. In Oakland, California, the last case of human plague was on July 17, 1908; the last case of rat plague on December 1, 1908.



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In Seattle, Washington, the last case of human plague was on October 31, 1907; the last case of rat plague on September 26, 1908.

The whole continent owes a debt of gratitude to San Francisco, not only for averting from the whole country an impending danger, but for affording to other cities a model of sanitary policy and execution. While in her dealings with the first epidemic, San Francisco allowed politics to exert a baneful influence, in the last one the united and awakened community presents the spectacle of politics replaced by enlightened statesmanship; thus she has eradicated from her limits bubonic plague, which threatened to decimate not only a single city but the entire country.

The story is well told in the lately published report of the Citizens' Health Committee. The experience of the city demonstrated two things very clearly: first, the efficiency of the United States Public Health and Marine-Hospital Service in emergencies of this kind; and second, the value of the co-operation of the lay public. Previous to the outbreak of this epidemic the most erroneous notions prevailed regarding the plague. It was said to be a disease affecting orientals only, a filth disease, one due to vegetarianism, a disease which had always existed in Asia, but need not be feared in America.

The first epidemic was confined to Chinatown and was eradicated by rat-proof building. The outbreak of the recent epidemic was from several foci, and the striking fact was ascertained that practically the only part of the city exempt was Chinatown. The disease affected Americans of the middle class, among whom reasonable cleanliness prevailed, and the mortality, although smaller than among the orientals, was sufficiently appalling, viz., 48 per cent.

The work of eradication was a war on the rat. This demanded the starving, poisoning, trapping and destruction by other methods of at least 2,000,000 rats. In order to make the work effective, it was necessary to enlist the co-operation of all classes of the community in making garbage and food supplies rat-proof as well as in the actual capture of the rodents. Not only employers, tradesmen, restaurant keepers, butchers, grocers, teamsters, householders, but even school children were pressed into service to rid the city of rats. Every one was incited to clean up his own premises and to see that his neighbour did the same. Not only were plague-bearing rats hunted out and killed, but an immense amount of work was done in laying concrete sidewalks and foundations, which with other forms of rat-proof building gives reason to hope that the plague will not again gain a foothold in the city.

The investigations of the health authorities showed that the plague among rats continued and even increased after the human cases had disappeared. This fact renders it advisable that rats should be periodically examined for the plague, so that the slightest evidence of recurrence among animals may be met by prompt and energetic measures to suppress the epizootic.

The example of San Francisco should lead other municipalities to meet their sanitary problems in the same united and determined way. Especially the seaports should remember that the introduction of plague is an ever-present danger which should be ward off by efficient measures against rats.

With regard to Seattle, which is so close to our boundaries, the Special Emergency Sanitation Squad, which is carrying on the work of prevention against the bubonic plague infection, is kept busy to the limit of its capacity.

A word in regard to the character of this work may not be amiss. With the limited number of men in this squad it is, of course, not possible to hope to exterminate the rat population of Seattle. It is possible, however, to do a great deal towards keeping it within bounds, and this is being done. The two squads, known as the trapping squad and the poisoning squad, are engaged daily in their work, with most satisfactory results. For instance, in October the poisoning squad used 602 pounds of poison, covered 507 blocks, and placed poison in 7,108 different places. In addition to this work, the men of this squad watch the vessels along the entire waterfront, with reference to enforcing the rules regulating rat guards and keeping boats off from the



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docks. This in itself is no small amount of work, and required the inspection of 1,739 vessels and the serving of 34 notices. The trappers work along the entire waterfront, and for the month brought in 2,393 rats. The bounty rats brought in numbered 3,141, giving a total of 5,534.

These rats came from every part of the infected district, and 4,054 of them were examined in the laboratory for evidences of infection. The great importance of this work, aside from the actual destruction of the rats by both traps and poison, is that the department, by the examination of several thousand rats from every part of the infected area, is able to keep close watch on any outbreak of the disease among rats. When an infected animal is found in any one of these places, this place is immediately surrounded by the two squads, and work is kept up until we have reasonable assurance that the infection in this locality is stamped out. By this kind of work, the department is able to give reasonable assurance of freedom from danger from this disease.

Another line of work done by the special squad is to answer calls of citizens and investigate certain districts, localities or houses where rats are abundant. Sixty-four of these investigations were made during the month. In the majority of instances the inspectors find that the trouble arises from the fact that the particular locality complained of supplies an abundance of excellent rat food, usually from a barn or chicken coop. Any region supplying abundant rat food must expect to have a large number of rats present, unless especial precautions are taken, and trapping and poisoning persistently kept up. A good house cat helps out a great deal in these cases, but care should be taken to choose a cat which is really a good ratter.

If each houseowner would do his part by keeping his premises free from rats by the methods mentioned, the department would have comparatively little difficulty in caring for the general situation.

In view of the lapse of time since the last cases of human plague had occurred in San Francisco and in Seattle, the special inspection of passengers and crews from Californian and Puget Sound ports was removed on October 7. The measures for excluding rats, such as breasting vessels away from the piers, guarding mooring ropes by discs, limiting and guarding gangways, &c., are still, however, maintained in force.

The Indian Government has issued a summary of the work of the plague commission, which may be regarded as the most recent and most authoritative pronouncement on the contagion of the disease. The conclusions are as follows: 1. Pneumonic plague is highly contagious, but it is rare (less than three per cent of all cases), and plays a very small part in the spread of the disease. 2. Bubonic plague in man is entirely dependent on the disease in the rat. 3. The infection is conveyed from rat to rat and from rat to man solely by the rat flea. 4. A case of bubonic plague in man is not in itself infectious. 5. A large majority of cases of plague occur singly in houses. When more than one case occurs in a house the attacks are generally nearly simultaneous. 6. Plague is generally conveyed from place to place by imported rat fleas, which are carried by people on their persons or in baggage. The human agent not infrequently himself escapes infection. 7. Insanitary conditions have no relation to the occurrence of plague, except in so far as they favour infection by rats. 8. The non-epidemic season is bridged over by acute plague in the rat accompanied by a few cases in man.

Rats are always a nuisance of the first order, and as carriers of disease a source of public danger. From the standpoint of health they possess no redeeming qualities, and the more quickly a great diminution in their numbers is affected the better it will be for everybody. The Rat Act of Denmark is one of the most remarkable laws in the history of legislation. It is the result of the grim fight carried on for ten long years by one man, Zueschlag, a civil engineer of Copenhagen, against the most merciless ridicule poured out by the Danish press, the galling contempt of scientists, and the lethargy of the people; but in the end he finds himself acclaimed as a benefactor of his country. He is now president of the powerful and influential 'Association Internationale pour la destruction rationnelle des Rats,' which has a membership of two thousand men of standing and known influence. In several countries government or



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port authorities have adopted Zuschlag's premium system of a national campaign on this principle. In England a society has recently been formed for the destruction of rats, with the support of such men as Sir Patrick Manson, Sir James Crichton Browne, Sir T. Lauder Brunton, Lord Avebury and Professor Simpson. It has been calculated that there are as many rats in a country as there are men, women and children, and that each rat destroys one farthing's worth of food, grain or material per day. At that rate the six million rats of Canada cost us the enormous sum of over thirty thousand dollars per day, nearly \$11,000,000 a year. In the United States, damage by rats, mice and rabbits aggregate \$160,000,000 each year, it is estimated by the Department of Agriculture experts. It is stated that in England and Wales alone every year rats do damage amounting to over fifteen million pounds, say, \$75,000,000.

*Japan's war on the Plague.* The plague in Japan first broke out in 1899, the cases numbering 230. The second visitation was in 1902 and 1903, the cases numbering 71. The third outbreak occurred on August 24, 1905. From then until the end of March, 1906, the cases numbered 103. The measures employed for fighting the disease are given by the *London Illustrated News* as:—

(1) Collecting and purchasing of rats at five yen a head (or rather body, for the whole carcass has to be delivered). To insure greater activity a ticket is given to every man who brings in a rat. This ticket is numbered, and may draw a maximum prize of 600 yen.

(2) The distribution gratis of rat poison of appellation. Ten cakes of poison to each house. Delivered to 3,000 houses a day—30,000 cakes of poison at an average cost of about 75 yen a day.

(3) Cleaning of houses and godowns (warehouses).

(4) To prevent rats from re-assembling in godown, extensive repairs are being carried on and all ground floor and walls rendered impenetrable. In connection with this regulation the number of godown considered in need of repair was 1,616.

(5) The damming of holes in drains to prevent rats getting out. This process was also carried out on the seacoast near the Kobe customs house.

(6) Inspection of patients. Doctors from the sanitary department make a house to house inspection, and where any sick person is discovered carefully investigate the nature of the disease.

(7) Examination of dead bodies.

(8) Injection of anti-plague serum in family of infected patient.

(9) Strict isolation.

The rats killed in Tokio from 1900 to June, 1906, numbered 4,820,000, an average of more than 800,000 a year. The ratio between the number of rats infected and the number of cases serves to prove beyond a doubt that these little animals are the most active disseminators of the disease, and the thoroughness and care with which the inspection is carried on is evinced by the fact that over 100,000 rats may be dissected without finding a trace of infection, yet vigilance is never relaxed.

Never for one instant do the surgeons forget that the very next one may contain microbes enough to depopulate the largest city. The marvellous rapidity with which the examination is done can be imagined when one learns that from 2,000 to 3,000 rats are examined a day, according to the number brought in.

The cakes of poison supplied by the government are made of sweet potato, red pepper and arsenic, and are coloured, with methyl violet, to prevent children eating them by mistake. The cleaning of houses is carried out most thoroughly twice every year, whole streets being taken at a time. Everything is brought out of the houses and piled up in the streets. Dirt, dust and refuse of all kinds are carted away and burned.

*Plague in India.* During the present year plague is in abeyance in India and the deaths number only hundreds instead of thousands, but no one can foretell when it may reappear in epidemic form. Since the outbreak in the summer of 1896 the



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mortality has been appalling. In that year it began in the Bombay Presidency, where it caused 2,219 deaths, most of them in the city of Bombay. In the following year the mortality rose to 54,000. Then the disease spread inland to other provinces. In 1901 the deaths amounted to 283,000; in 1902, to 584,000, and in 1904, to 1,144,000. In 1905 over a million deaths occurred. In 1906 a great decrease occurred, the deaths falling to a third of those of the previous year. No explanation could be given for this sudden fall, and it was hoped that the disease had expended its virulence. But in 1907 it gained fresh vigour and caused more deaths than ever—1,316,000. Then another lull occurred, and the number fell to 149,000 in 1908. The total deaths for the twelve and a half years since the disease appeared in epidemic form has reached the enormous figure of 6,200,000.

The Bubonic Plague has occurred during this year in Australia (caught in one case from a kitten), Azores, Brazil, China, Ecuador, Egypt, England (Liverpool), East Africa (British and German), Formosa, Hawaii, India, Japan, Mauritius, Peru, Queensland, Russia, South America, Venezuela and Zanzibar.

*Asiatic Cholera* has occurred during the year in Arabia, Austria, Ceylon, China, India, Japan, Korea, Persia, Philippine Islands, Russia, Siam, Straits Settlements, Turkey in Asia and Turkey in Europe.

In Russia the outbreak began in July and August, principally in Astrakan and Saratov, the disease having been previously absent from Russia since the previous January. Its appearance in the remote southeastern provinces of Russia in July did not attract much sanitary attention. In September, however, when cases began to appear in the neighbourhood of St. Petersburg, the situation was justly regarded as grave.

The cases have since increased alarmingly, not only in the Russian capital but in many other parts of the country. An inspection service in the interest of the United States was established at Libau, on the Baltic, the only Russian port from which emigration takes place to the United States. At Libau, which is connected with St. Petersburg and other infected districts by railroad, intending emigrants are detained in close quarantine for five days. If, after this period of detention, conditions are satisfactory, they are allowed to go into the city and are lodged in various places under observation until their departure. Before embarking, emigrants undergo final examination, and all baggage is disinfected prior to being taken on board. The voyage from Libau to New York lasts from seventeen to eighteen days. Libau has a water supply from artesian wells over 200 feet deep. The last occurrence of cholera at that place was in 1892, when all the members of one family were attacked, but the disease did not spread.

The great mass of Russian emigration is via ports of other European countries whose own interests make them exercise a vigilant surveillance of suspected travellers passing through their gates. Germany's calamitous cholera experience, beginning in 1892 with the sudden appearance of the disease in Hamburg—an important port of departure for Russian emigrants—taught a convincing lesson in regard to the relation of the water supply to cholera. An epidemic causing within ten days of its outbreak 1,000 cases a day is not soon forgotten. This outbreak lasted three years, visiting hundreds of places in that country and threatening the entire world.

At St. Petersburg many conditions exist which favour the spread of cholera when once introduced. The city, built on made ground, is surrounded by a network of stagnant canals, whose water is frequently drunk by the poorer classes. Hamburg's lesson of defiled water supply should be put to practical application at St. Petersburg. The cholera of St. Petersburg was of a virulent type, and the percentage of mortality was high. The disease spread rapidly into the provinces along the Volga, down both coasts of the Caspian and in the territory of the Don Cossacks; in other words, in the eastern and southeastern districts of European Russia. By the end of August there was an average of 1,200 cases reported each week, with a mortality of upward of fifty



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per cent. Up to February 22, when the epidemic of cholera in St. Petersburg had lasted for 160 days, 10,000 cases had been reported, with 3,928 deaths. The largest number of new cases reported in one day was 444, the lowest nine. The epidemic has concentrated the attention of the St. Petersburg authorities on the long-neglected task of improving the water supply and sewer facilities of the capital. The sewers now empty into the River Neva or the open canals traversing the city, and the water supply is taken from the river. This in spite of the fact that Lake Ladoga, twenty miles away, offers an abundant supply of fresh water that could be obtained at small expense. The mayor of St. Petersburg, at the instigation of the premier, M. Stolypin, has appointed a commission to arrange for immediate action in these directions. The central government will share a part of the expense.

*Smallpox.*—This disease has been pandemic almost throughout the year.

The temporary medical inspectors on duty at the beginning of the year at Fort Francis and Rainy River in Ontario, and at Sprague, Emerson, Gretna, Morden, Crystal City, Killarney, Boissevain, Deloraine and Waskada, in Manitoba, on account of an outbreak of smallpox in epidemic form in Minnesota and North Dakota, were released from duty on August 15 last, the outbreak having died down.

Owing to a reported outbreak of this same disease in Newfoundland, your ministerial order, excepting under section 7 of the Quarantine Regulations vessels from Newfoundland and free from infectious disease, from inspection, was suspended by you; and on January 27 a circular letter was sent to your quarantine officers on the Atlantic coast, ordering the routine and careful inspection of all vessels from that island. This inspection is still in force.

*Yellow Fever.*—In addition to the appearance of this disease in its accustomed haunts, it has broken out in Barbados. A circular letter to your Atlantic coast officers, drawing attention to this fact, was issued on February 17.

*Leprosy.*—The idea that parasitic insects might play some role in the transmission of leprosy has existed for some time. The brilliant results which have followed the investigation of the role of biting insects in the transmission of malaria, yellow fever, the sleeping sickness, and certain other forms of so-called infectious diseases, have led to speculation upon the possible intermediation of the rat flea (leprosy is a well recognized disease of the rat), the mosquito, the house fly, &c., with regard to leprosy. It is evident, however, that the simple taking up of parasites by an insect does not necessarily imply that the insect plays a role in their transmission from one host to another, other than that of possible mechanical conveyance from one place to another. The data now available do not permit of a positive statement of any such transmission of leprosy as is established for yellow fever and malaria by the mosquito, of the sleeping sickness by the trypanosome-bearing tsetse fly, or of the bubonic plague by the rat flea.

During this year four new cases of leprosy occurred or were discovered in Canada. They were dealt with by you under the Act respecting leprosy. Two of the cases were found at Lamèque, N.B., and were removed to the Lazaretto at Tracadie, N.B. The other two cases were Chinese: one found in Manitoba, the other in British Columbia; they were both, with their full approval, deported and sent back to China. They had both been some time in Canada before the disease appeared.

Another case was reported from the General Hospital, Winnipeg, in August last. I made a careful personal examination, and the history and symptoms established the fact that it was not a case of leprosy.

*Annual meetings.*—In addition to the Congress on Tuberculosis already referred to, I had the honour of presiding over the annual meeting of the Canadian Medical Association in this city, in June last, and of attending the annual meeting of the American Public Health Association held in Winnipeg, Manitoba, in August. Both meetings were largely attended and successful.



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*Grosse Isle, Que.*—Vessels inspected, 379, being 355 at Grosse Isle, and 24 at its substation at Rimouski. Persons inspected, 100,486, being 79,263 at Grosse Isle, and 21,223 at Rimouski. Infectious disease was reported or discovered on 26 vessels. The admissions to hospital were 245. The diseases included scarlet fever, diphtheria, measles, chickenpox and typhoid fever. There were no deaths or burials at the hospital during the season.

The carrying out of the western wharf into deep water, so that infected vessels might come to it for the immediate landing of their passengers, and the prompt treatment and disinfection of the vessel, continues to be a matter that is of the gravest importance in the interests of the passengers and of the shipping. The new steamer *Alice* is a valuable addition to the equipment of the station.

The replacing of the old wooden detention sheds for second class and steerage passengers, which sheds date back from 1832 and 1848, by brick buildings with modern appliances, is more and more urgently pressing each year.

The installation of the Laveuse Disinfecteuse at the hospital is one of the most important improvements carried out this year. New quarters were also provided for the hospital steward.

*Halifax, N.S.*—Vessels inspected, 292. Persons inspected, 58,018. Vessels arriving with infectious disease, 13. Admissions to hospital, 59. Deaths, 2.

An electric lighting plant has been installed at this station. The steamer *Argus* having been condemned, steps are being taken by your direction to obtain a new quarantine boat in her place.

In addition to work with foreign vessels, eight of the crew of the Canadian Government steamer *Canada* were treated in the quarantine hospital in February and March for smallpox. They all recovered.

*St. John, N.B.*—Vessels inspected, 151. Persons inspected, 19,931. One case of chickenpox on the S.S. *Lake Michigan* was the only case treated during the year at this station.

The exchange between the lightkeepers' residence and that of our steward has been decided upon, and is to take place on the 15th proximo. This enables us to have our quarantine portion of the island self-contained and separate.

A larger steam sterilizer and deep water wharf continue to be the most pressing needs at this station.

*Sydney, N.S.*—Vessels inspected, 138. No quarantinable disease found on any of these vessels inspected. In June last the Canadian Government steamer *Tyrian* was allowed to land a patient suffering from smallpox, who was treated at the quarantine station. A case of diphtheria from another coastwise vessel, the steamer *Kamjford*, was also removed to quarantine station, your consent thereto having been given as an action of courtesy and grace.

*Louisburg, N.S.*—Vessels inspected, 28. No quarantinable disease.

*Chatham, N.B.*—Vessels inspected, 39. No quarantinable disease.

Considerable repairs and improvements were carried out at this station, as detailed in the report of its quarantine officer, which is annexed.

*Charlottetown, P.E.I.*—Vessels inspected, 11. No quarantinable disease.

*William Head, B.C.*—Vessels inspected, 261. Total of crews, 20,424. Passengers, 12,180. Steerage, 13,434. Amongst the steerage passengers, there were 7,629 Chinese and 2,689 Japanese, of whom 694 were women; and 9 Hindus.

Diseases reported by incoming vessels: Smallpox, mumps, measles and dysentery. The *Empress of China* was quarantined in Japan in June, on account of a case of plague, which was found on arrival at Nagasaki. There were only three patients in hospital during the year, one with beri-beri, one with smallpox and one with dysentery.



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*Victoria, B.C.*—Four foreign vessels inspected. No quarantinable disease.

*Vancouver, B.C.*—Two vessels inspected. No quarantinable disease.

*Prince Rupert, B.C.*—Dr. Ernest H. Tremayne has been appointed quarantine officer at this port, and has assumed his duties there.

*Tracadie Lazaretto, N.B.*—There are at present 19 patients. No death occurred during the year. Two new patients were admitted and one former one readmitted. Philip Dignard, a man of 44, admitted October, 1900, was discharged 'cured' in August, 1905, but the disease reappeared recently, and he was readmitted March 17, 1909, blind and suffering. He refused to continue the chaulmoogra oil after his discharge. The disease reappeared in the spring of 1908.

This institution and this department have suffered a severe loss in the death of Dr. A. C. Smith, for so many years in medical charge of this Lazaretto. Dr. Smith, who had been engaged in the care of the lepers since 1865, had been in failing health for some months past, and succumbed to a disease of the heart on the 12th of this month. The department loses in him a faithful and a zealous officer, and the lepers of Tracadie a kind and attentive friend.

*Darcy Island, B.C., Lazaretto.*—Two lepers were taken temporarily to this station during the year, while arrangements were made for their being deported to China.

*Public Works Health Act.*—Dr. T. R. Chamberlin, inspector for the territory west of Winnipeg, resigned his appointment on June 1 last. Mr. Chas. A. L. Fisher reports:—

That on his several tours of inspection of the public works of the Dominion during the past year, he has found the medical service given to be more numerous and complete, and the sleeping quarters and board of the men to be fully equal to the very good conditions in that way reported last year; and he states that the year has again been an exceptional one in the almost general non-appearance of contagious and infectious diseases among the men, considering the number that have been employed upon the various public works of the Dominion.

I have the honour to be, sir,

Your obedient servant,

F. MONTIZAMBERT, M.D.,

*Director General of Public Health.*

The Honourable

The Minister of Agriculture,

Ottawa.



## No. 2.

(G. E. MARTINEAU, M.D.)

GROSSE ISLE, QUE., March 31, 1909.

SIR,—I have the honour to submit this my annual report of the St. Lawrence quarantine service for the year ending March 31, 1909.

There were 355 vessels inspected at this station during the year, being an increase of five as compared with the number reported last year. Of this number two only were sailing vessels.

The total number of persons examined was 79,263, being a decrease of 78,096 as compared with last year.

They were divided among the different classes of passengers as follows: Cabin, 3,611; intermediate, 17,538; steerage, 28,071; cattlemen, 891; crews, 29,072 stowaways, 80. There was a decided decrease in the number of stowaways this year.

Infectious disease was discovered or reported on the following vessels arriving at the station, named in the order of their first arrival, with sickness on board: SS. *Corsican*, *Corinthian*, *Hesperian*, *Sardinian*, *Tunisian*, *Montezuma*, *Lake Manitoba*, *Montrose*, *Southwark*, *Montreal*, *Mount-Royal*, *Victorian*, *Kensington*, *Cassandra*, *Pretorian*, *Virginian*, *Ionian*, *Sicilian*, *Empress of Ireland*, *Lake Michigan*, *Canada*, *Mount-Temple*, *Lake Erie*, *Turcoman*, *Melville* and *Numidian*.

Patients were landed on forty-six different occasions.

The diseases so discovered or reported were: Scarlet fever, diphtheria, measles, varicella and typhoid fever.

Deaths during the voyage were reported on the S.S. *Corsican*, *Southwark*, *Lake Manitoba*, *Dominion*, *Roman*, *Hesperian* and *Montreal* from the following causes: Heart failure (3), suicide (1), epilepsy (1), overlying (1).

Births were reported on the SS. *Kensington* (2), *Lake Michigan* (1).

Only one person refused to be vaccinated during the season, and that was on board the SS. *Dominion*. The party was landed for the usual period of observation.

There were 245 admissions at the hospital, and we had continually a number varying from 20 to 50 at a time, suffering from different diseases.

There were no deaths nor burial at the hospital during the season.

*Quarantine staff*.—Dr. E. Belisle continued to be in charge of the Rimouski sub-station.

*Improvements*.—The installation of the 'Laveuse Desinfecteuse' at the hospital must be regarded as one of the most important improvements carried out this year.

New quarters were also provided for the hospital steward.

*Requirements*.—The great deficiency at this station continues to be that of a deep-water wharf, a wharf to which infected vessels could be brought to land their passengers and effects.

A new building is required for the accommodation of the second cabin passengers; also four new buildings: one to be used as quarters by the captain and chief engineer, one for a schoolhouse, one for a laboratory and the other one for a store where to put the provisions, bedding, &c., necessary for the hospital.

The old wooden sheds which date from 1832 and 1848 should be replaced by more modern buildings and appliances.

The Str. *Challenger* which has been condemned since two years should be replaced by another boat.



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There are still some other works and repairs necessary, a list of which has been forwarded to the department.

All of which is respectfully submitted.

I have the honour to be, sir,

Your obedient servant,

G. E. MARTINEAU, M.D.,

*Medical Superintendent of the St. Lawrence Quarantine Service.*

The Honourable

The Minister of Agriculture,  
Ottawa.

## No. 3.

(N. E. MacKay, M.D., M.R.C.S.)

HALIFAX, N.S., March 31, 1909.

SIR,—I have the honour to submit my annual report of this station for the year ended March 31, 1909.

The number of vessels inspected during the year just ended was 292, being 12 less than that inspected in the preceding year. During the same period, there were 58,018 persons examined, classified as follows: Cabin, 1,856; intermediate, 9,249; steerage, 25,957; crew, 20,956. The total is less than that in the year ended March 31, 1908, by 11,905.

One of the minor quarantinable diseases was found on board the following vessels, or occurred during their voyages to this port: SS. *Pretorian*, from Glasgow, April 2, 1908, 1 case of chickenpox; SS. *Virginian*, from Liverpool, April 4, 1 case of enteric fever; SS. *Empress of Britain*, April 10, 2 cases of measles; SS. *Canada*, April 10, 1 case of chickenpox; SS. *Tunisian*, April 10, 3 cases of measles; SS. *Southwark*, April 19, 1 case of scarlet fever; SS. *Empress of Ireland*, April 23, 1 case of diphtheria; SS. *Luetson*, Bremen, April 26, 1 case of chickenpox; SS. *Jelungh*, Rotterdam, June 12, 1 case of measles; SS. *Canada*, December 6, 1 case of chickenpox, 2 of measles; SS. *Hesperian*, March 5, 1909, 1 case of measles; SS. *Dominion*, March 6, 2 cases of measles; SS. *Tunisian*, March 20, 1 case of measles.

Sickness other than quarantinable diseases and death occurred on the following vessels: SS. *Pomeranian*, April 9, 1908, 2 meningitis; SS. *Empress of Britain*, April 10, 1 death of pneumonia; SS. *Empress of Ireland*, April 23, 1 death from diphtheria; SS. *Kuandom*, Rotterdam, April 26, 1 death, atelectasis; SS. *Victorian*, 2 deaths from delirium tremens; SS. *Corsican*, December 13, 1 rheumatism, 1 eclampsia; SS. *Empress of Britain*, January 22, 1909, 1 death from pneumonia; SS. *Tunisian*, February 14, 1 pneumonia; SS. *Corsican*, February 27, 1 pneumonia; SS. *Vancouver*, March 22, 1 bronchitis.

There were fifty-nine (59) persons treated at the station hospital during the year, and two deaths occurred: one from scarlet fever, and one from broncho-pneumonia secondary to measles. Both were young children.

An electric-lighting plant was installed at the station last summer, which was much needed and which upon the whole is fairly good.

The steamer *Argus* was condemned in June, and since then we have been doing the work with Messrs. Geo. S. Campbell and Company's tow-boats, and upon the whole they have given very satisfactory service. There is nothing so satisfactory, however,



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as having a boat of our own, and it is to be hoped we will be provided with a new one without delay.

An engineer to look after the plant at the station should be appointed without delay, and a capable carpenter who would look after repairs to buildings. He could, if desirable, be made to inspect work under construction there. We need such an officer badly.

Coal sheds should be constructed as soon as the repairs to the wharf are finished. The saving effected in coal would, I am sure, justify the expenditure.

Outside our regular work, we have had under treatment at the station eight of the crew of the C.G.S. *Canada* in February and March for smallpox. They all recovered, and only one of the crew of that ship developed the disease after we took charge of them.

The work of this station was uneventful during the year just ended.

I have the honour to be, sir,

Your obedient servant,

N. E. MACKAY, M.D., M.R.C.S.,

*Quarantine Officer.*

The Honourable

The Minister of Agriculture,  
Ottawa.

#### No. 4.

(R. C. RUDDICK, M.D.)

ST. JOHN, N.B., MARCH 31, 1909.

SIR,—I have the honour to submit my report for the year ending March 31, 1909.

Number of vessels inspected, 151. Number of persons inspected, 19,931; classified as follows: Cabin, 621; intermediate, 1,699; steerage, 10,583; cattlemen, 409; crew, 6,609; stowaways, 10.

No vessel arrived with the graver quarantinable diseases.

One vessel arrived with a minor quarantinable disease. The SS. *Lake Michigan* arrived on December 22, 1908, with a case of chickenpox, which was the only case treated during the year at our hospital.

There were 10 deaths reported during the voyage to this port for the year: SS. *Montreal*, 1 death from pneumonia, April 5, 1908; SS. *Empress of Britain*, 1 death from pneumonia, April 7, 1908; SS. *Lake Michigan*, 2 deaths from pneumonia, (1) February 7, 1909, suicide (1) April 20, 1908; SS. *Montfort*, 2 deaths from pneumonia, (1) April 16, 1908, suicide (1) April 20, 1908; SS. *Hestia*, 1 death from heart disease, June 6, 1908; SS. *Sobo*, 1 death from explosion on board, November 9, 1908; SS. *Lake Erie*, 2 deaths from pneumonia, (1) January 20, 1909, suicide (1) March 9, 1909.

The class of emigrants coming to this port this year has been exceptionally good. While we generally look for some of the minor quarantinable diseases on each ship coming in with a large steerage list, especially those from the continent, I may say that this year has been an exception, only one case, of chickenpox, arriving from Antwerp.

We are in much need of a low-water wharf, and a quarantine boat fit for an all-year-round service.



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The exchange between the lightkeeper's residence of the Marine Department and the steward's residence of the Department of Agriculture, which has been decided on between the two departments to take place on the 15th inst., is in my opinion a very good move for both departments. It centralizes each department's work here, and makes a complete quarantine, each department occupying different sides of the island.

This change will necessitate considerable new fencing, which when completed will put us in a position which we have been striving for for years. We did quite a lot of fencing the past year, and also some grading, which is still very much needed. By blasting the tops off the boulders and filling in the blasted stone in the hollows quite a level surface could be made on the island.

I have the honour to be, sir,

Your obedient servant,

R. C. RUDDICK, M.D.,

*Quarantine Officer.*

The Honourable

The Minister of Agriculture,  
Ottawa.

## No. 5.

(H. RINDRESS, M.D.)

NORTH SYDNEY, N.S., March 31, 1909.

SIR,—I have the honour to submit my report for the year ending March 31, 1909.

During this period there were 138 vessels inspected at this port. Of these, 117 were steamships and 21 sailing vessels. No quarantinable disease was found on any of these vessels inspected. The D.G.S. *Tarisa* arrived here from Halifax on June 10, 1908, flying a yellow flag at the foremast, and on boarding her I found one of the crew suffering from smallpox. The patient was subsequently removed to and treated at the Point Edward station, with the consent of the department. There was also a case of diphtheria discovered on another coastwise vessel, the SS. *Kamford*, which arrived here on December 21, 1908, and was later removed to the quarantine station, with the department's permission.

The milder infectious diseases found on ships inspected have been from time to time mentioned in my weekly reports.

By the authority of the Minister of Agriculture, exemption from inspection of vessels from Newfoundland was raised on February 1, 1909, owing to an epidemic of smallpox there. The SS. *Brazo*, running regularly between North Sydney and Port aux Basques, has been inspected every trip, and all passengers are required to furnish satisfactory evidence of recent vaccination.

I have the honour to be, sir,

Your humble and obedient servant,

H. RINDRESS, M.D.,

*Quarantine Officer.*

The Honourable

The Minister of Agriculture,  
Ottawa.



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## No. 6.

(FREEMAN O'NEIL, M.D.)

LOUISBOURG, N.S., March 31, 1909.

SIR,—I have the honour to submit my annual report for the year ending March 31, 1909.

The total number of vessels inspected at this quarantine station for the year just ended was 28, with a total number of 917 men.

No quarantinable disease of any kind was brought to this port during the year. Owing to the late season in North Sydney, not so many foreign vessels called at this port as in some former years.

I would again beg leave to suggest the urgent need of some provision being made to provide and equip this station with the necessary buildings and wharf, suitable to the requirements of the port. The necessity of this was strongly shown this winter when quarantine was established between Newfoundland and this port. Also that some suitable arrangements be made to provide a boat for boarding vessels.

I have the honour to be, sir,

Your obedient servant,

FREEMAN O'NEIL, M.D.,

*Quarantine Officer.*

The Honourable

The Minister of Agriculture,  
Ottawa.

## No. 7.

(PETER CONROY, M.D.)

CHARLOTTETOWN, P.E.I., March 31, 1909.

SIR,—I have the honour to submit my report for the year ending March 31, 1909.

There was no contagious disease on any vessel arriving at this port during the past year.

The traffic with this port comes mostly from points within the line of exemption. There was an outbreak of smallpox in Nova Scotia during the past year; but no case occurred within this province.

There were eleven inspections made of vessels from beyond the sea. One death occurred from beri-beri on board the barque *Usko* from Spain; burial took place at sea.

The hospital quarters are now in a suitable state of preparedness, thanks to the various repairs and improvements made, and to the good grace of the department in freely supplying our every need. During the past summer a new and more commodious pantry was added to the kitchen appointments of the hospital.

All of which is respectfully submitted.

I have the honour to be, sir,

Your obedient servant,

PETER CONROY, M.D.,

*Inspecting Physician.*

The Honourable

The Minister of Agriculture,  
Ottawa.



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## No. 8.

(J. BAXTER, M.D.)

MIDDLE ISLAND, CHATHAM, N.B., March 31, 1909.

SIR,—The end of our year having arrived, I beg leave to report concerning the work of last season as follows:—

The work that was stopped the fall before on account of frost was finished last spring as soon as conditions permitted, viz., the bathrooms in both hospitals. Connections were made from the force pump in the keeper's house, and everything works perfectly satisfactorily.

A new wharf was built in front of the keeper's house for landing from the boats, or rather a landing stage, with two permanent stone filled abutments. A bathroom was put in the keeper's house, with a sink, hot and cold water and a new range in the kitchen. A sewer drain of tiles laid in cement was carried from the house to the river at the low water line 276 feet, and works excellently. A few other improvements have been made which will render the station much more effective in future.

Number of vessels inspected, 39. Steamers, 20; barks, 16; three-masted schooner, 1. Number of men examined, 766.

I have the honour to be, sir,

Your obedient servant,

J. BAXTER, M.D.,

*Quarantine Officer.*

The Honourable  
The Minister of Agriculture,  
Ottawa.

## No. 9.

(A. T. WATT, M.D.)

VICTORIA, B.C., March 31, 1909.

SIR,—I beg to submit this my report of transactions at the William Head quarantine station for the twelve months ending March 31, 1909.

During this period there were 261 vessels inspected. The members of the crew numbered 20,424, and the passengers were 12,180 cabin, and steerage 13,434. There were 5,953 Chinese and 2,475 Japanese members of crew. Other Asiatics numbered 276. Amongst steerage passengers there were 7,629 Chinese, and 2,689 Japanese of whom 694 were women, and there were 9 Hindus. The majority of Chinese were for Canadian ports but the greater number of Japanese were bound for United States ports. The Hindu immigration which reached considerable volume in previous year has during last twelve months practically ceased. A new feature in the immigration to this coast this year seems to be looming up. This is seen in the arrival of small parties of Russian immigrants, the largest being a party of 50. It is reported that other parties are preparing to come; so there will be still another class of people to be dealt with in quarantine.



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All Asiatic steerage passengers and members of crew before departure from China or Japan ports have gone through the routine disinfection or else were given disinfection on arrival at this station. Six vessels were disinfected here.

The passengers of the SS. *Peleus*, on which smallpox had occurred at Kobe, were held for completion of quarantine period from date of disinfection by Japanese authorities. Another vessel of same line, the SS. *Oanfa*, had an outbreak of smallpox en route and was disinfected at Singapore. The outbreak was amongst pilgrims being carried to that port. There were 7 cases with one death. The SS. *Empress of China* was quarantined in Japan on account of plague which was found on arrival at Nagasaki in June, but only the one case occurred. Other sicknesses occurring with vessels en route here were: mumps, measles and dysentery, but all were convalescent except one patient with dysentery. This was the only patient in hospital with the exception of one case of smallpox and another of beri-beri, which were in hospital at the beginning of the year and were from vessels arriving in previous months. This year, therefore, has been the least eventful year for many years past, and may be attributed to absence of any great epidemic in the Orient and to the fewer number of passengers arriving and the consequent lessened chance of infection being brought.

The cities of San Francisco and Seattle, where plague was present in previous year, were this year free from this disease, although an occasional rat was found to be affected with disease. None, however, have been found for several months. Precautions against rats getting on shore in our ports are still continued in the case of vessels arriving from these cities. There has been no smallpox in epidemic form in any of the neighbouring States and no quarantine on such account has been called for.

The improvements and repairs undertaken at the station during past year have been quite extensive. Most of the buildings at the station were painted on outside and some work done inside as well. The renewal of stringers and planking of top of deep-water wharf was completed. The old boathouse was placed in a better position, and a suitable house made for housing launch only. A new engine was put in launch and has given every satisfaction. The intake of water service pipe at quarantine lake was overhauled and a better arrangement of settling basin and screens was effected. Steam steering gear, also steam reversing gear have been installed on steamer *Madge*. These have much facilitated the quick handling of the steamer when boarding vessels. A modern sulphur di-oxide plant has been purchased and is now being put in place on wharf. The new cylindrical steam sterilizing chamber is also in course of installation. The steam chamber should have been in working order several months ago, but when it was partially completed a fire took place at the Victoria machinery depot and destroyed several castings and burned the patterns, so there was great delay in getting the work completed. An examination of this chamber after the fire made manifest that should such a fire take place in the disinfecting building at station the disinfecting plant would be rendered useless for several weeks or for the period required to effect renewals of parts damaged. The making of the disinfecting building fireproof is therefore to be looked forward to. This work was in part undertaken over a year ago, but until the new chamber is in place the continuance of this work cannot be gone on with.

Since Dr. Anderson's resignation twelve months ago as medical assistant and bacteriologist at this station, Dr. A. E. McMicking has been acting assistant and bacteriologist, but he has had only routine duties to perform.

The Darcy Island lazaretto has been used for the temporary detention of two cases of leprosy during the year. One case was a Chinese laundryman in Austin, Manitoba, and I proceeded there last May and made arrangements for the transportation of this man to the coast and later secured passage for him to Canton. The other case was a Chinese vegetable gardener from near New Westminster, B.C., and after a short stay at Darcy Island he also was returned to China. A third case was re-



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ported recently, a Chinaman from a whaling station, but this man has been lost sight of and has probably found his own way to China.

I have the honour to be, sir,

Your obedient servant,

A. T. WATT, M.D.,

*Superintendent B. C. Quarantines.*

The Honourable

The Minister of Agriculture,  
Ottawa.

## No. 10.

(R. L. FRASER, M.D.)

VICTORIA, B.C., March 31, 1909.

SIR,—I have the honour to submit my report for the year just ended.

Foreign coasting vessels were exempt from inspection during the year. Precautions were taken to prevent rats landing from steamers from Seattle, where bubonic plague had appeared.

During the year I examined four foreign vessels and found no quarantinable disease on any of them. These were examined in May, 1908, during Dr. Watt's absence in Winnipeg on public health duty.

I have the honour to be, sir,

Your obedient servant,

R. L. FRASER, M.D.,

*Quarantine Officer.*

The Honourable

The Minister of Agriculture,  
Ottawa.

## No. 11a

(L. N. MACKECHNIE, M.D.)

VANCOUVER, B.C., March 31, 1909.

SIR,—I have the honour to submit my report for the year just ended.

Two vessels have been inspected at this port. No case of infectious or contagious disease has been found.

I have the honour to be, sir,

Your obedient servant,

L. N. MACKECHNIE, M.D.,

*Quarantine Officer.*

The Honourable

The Minister of Agriculture,  
Ottawa.



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## No. 11b.

(SISTER L. LÉGÈRE.)

LAZARETTO, TRACADIE, March 31, 1909.

SIR,—I have the honour to submit the annual report of the Tracadie Lazaretto.

We have at present 19 lepers in our institution—11 males and 8 females. Four are in the first stage of leprosy, 11 in the second and 4 in the third or final stage. Fourteen of our patients are of French, 2 of English, 2 of Icelandic and 1 of Russian origin. Their ages vary from seven to seventy-seven years. Two new patients were admitted during the year—a mother and son. The patient, a man, discharged as cured in October, 1905, returned to the Lazaretto March 17, 1909, symptoms of the malady having reappeared on him with complete loss of eyesight. He discontinued taking the chaulmoogra oil after he left the institution, contrary to the orders of our physician, and the disease began to resume its usual course in June, 1908.

Our other patients are still using the chaulmoogra oil, and with benefit.

During the last illness of our regretted doctor, A. C. Smith, Dr. A. J. Losier was requested by him to attend the Lazaretto regularly, and all possible was done to alleviate the sufferings of our dear lepers and to improve their condition.

I have the honour to be, sir,

Your humble servant,

SISTER L. LEGERE,

*Superintendent.*

The Honourable

The Minister of Agriculture,  
Ottawa.

## No. 12.

## THE INTERNATIONAL CONGRESS ON TUBERCULOSIS.

WASHINGTON, D.C., SEPTEMBER 28 TO OCTOBER 3, 1908.

(REV. THOMAS HUNTER BOYD.)

WAWAIG, N.B., March 31, 1909.

SIR,—I have the honour to submit a brief report of the proceedings at the Congress on Tuberculosis, held in Washington, September-October, 1908.

My attention was devoted chiefly to the work of the section on 'Hygienic, Social, Industrial and Economic Aspects of Tuberculosis,' and the section on 'State and Municipal Control of Tuberculosis.'

The full text of the entire proceedings is now being prepared by the secretary-general, Dr. J. Fulton, and will shortly appear in four large volumes. Meantime, certain impressions are herein submitted as supplementary to those given by members of the medical profession in Canada. The most cordial welcome was extended to lay-



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men in this congress, as it is now universally recognized that the intelligent and hearty co-operation of all classes is extremely desirable.

The registration for Canada included fifty doctors, all parts of the Dominion being represented, except the maritime provinces.

## A PEACEFUL WARFARE.

The Canadian delegates convened during the progress of the congress and considered with much care the agencies at work in this country, and the requirements for prosecuting the attack on this terrible scourge with more vigour and uniformity. Extremely valuable contributions were made by several Canadians to the various sections of the congress, but the Dominion as a whole was not well represented in the exposition which was in progress during the sessions of the congress. Some countries, e.g., Ireland, Germany, Sweden, and certain states, e.g., Massachusetts and Colorado, had prepared volumes which set forth in an exhaustive and beautiful manner the work that has been done by their respective governments.

The problem of controlling tuberculosis in its varied forms, human and animal, is so vast and so varied, that not a few countries now perceive it has become a kind of standard by which they may be judged in the eyes of the world. Since 1882 it has happily been possible not only to reduce its ravages, but in doing so the conditions have been changed which contributed largely to certain other causes of mortality.

This crusade has served to strengthen the social sense of citizens in every country in which it has been wisely conducted, and it has become not only a national unifier but has helped to federate the world. Indeed, we may confidently assert that this effort to employ all available resources of science against an insidious and deadly foe has proved to be a great peace factor amongst the nations. In ordinary warfare of the old type the secrets of campaign were jealously guarded, but in this international attack against the enemy of hearths and homes, there is a rivalry to contribute to the common stock of knowledge for the welfare of mankind.

## THE STRENGTH OF THE ENEMY.

The preparation of statistics in regard to prevalence and treatment of tuberculosis has not been undertaken on account of curiosity, or a desire to create favourable impressions upon neighbouring countries. A fundamental step is taken when a nation determines the extent and character of this disease. Much requires to be accomplished in Canada in this respect, in order to bring out the true condition of affairs.

Till recently, the maritime provinces have been lacking in data, but vital statistics are now forthcoming from Nova Scotia and Prince Edward Island. It would be a greater service if uniform nomenclature could be adopted in the provincial registers in all deaths due to the varied forms of tuberculosis. Each province could then compare its finding with the Dominion census, and with the prevalence in other provinces. There is a very important note by the census commissioner in Vol. IV., p. 228 (1901), which shows that our mortality returns are not full. From this we may probably conclude that the disease is more prevalent than is generally supposed. But if the mortality returns are incomplete we may experience even more difficulty in securing exact information about living cases. This is an essential step, however, and legislation and organized effort towards this end must be secured as speedily as possible. Either voluntary or compulsory notification will help to develop the hygienic sense of the nation, and in due time as this becomes more uniform and effective it will be possible to issue reports that will enable communities to gauge progress and forecast needs. Municipalities could then learn from each other's experience, and the central bureau of statistics could analyse the whole in respect of conditions as to climate, altitude, urban and rural, nationality and industry. Canada could thus contribute



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still further to the world's knowledge on this subject, owing to our great variety of races and occupations. But there would be an immediate practical gain for ourselves. By this means we should learn the chief sources of infection, and efforts could be concentrated on danger centres until they cease to exist.

#### THE PLAN OF CAMPAIGN.

The presence of official representatives from nearly forty nationalities at the congress indicated that already it is recognized that no country liveth to itself. During the past few years there have been earthquakes and other calamities which have called forth the sympathy of the whole civilized world. The response has been prompt and generous, indeed repression has in some instances been manifested. It has not been so easy to awaken the public conscience to the havoc wrought by this disease, but it is now alert. We are interested in racial susceptibility because even if very few persons escape the rigours of examinations to which immigrants are subject, we know that under certain conditions the descendants may differ in degree of immunity. The facilities of travel, the frequency of migration, and the interchange of articles of diet have all served to make us more observant of conditions in other lands which tend for or against the prevalence of this disease. International congresses have fostered this interest, and the most remote village now has the aid of the most eminent physicians, investigators, public officials, sociologists and philanthropists. A local board of health can work under the direction of those who have made a comparative study of regulations and methods, and in some notable instances issues its directions in a score of languages. This presents possibilities of economy, and what is more important a higher percentage of curable patients. It will soon be true that each nation will have the tuberculosis which it deserves. Already we have more knowledge than is put to effective use. Already it is evident that the suppression of this foe to public welfare must not be left to the good but intermittent attacks of single communities and zealous individuals. If one patient is to learn from another already cured, one government must profit by the experiments of another, and it will soon be deemed as culpable to refrain from well directed efforts to ensure and maintain the highest all round efficiency of each individual, as formerly not to have the latest armament.

#### OUR ALLIES.

Striking evidence of the recognition of many governments that the health and efficiency of their people is an asset of prime importance was displayed in the Washington exposition and congress. They deputed many of their most distinguished scientists to attend the sessions, and forwarded most valuable exhibits. The federal government of the United States made most generous appropriations towards the cost of the undertaking, and not a few of the state and municipal governments were eager to take their part in affording hospitality for the visitors. The leaders of the American forces recognized that they had to fight not only a germ, but apathy. They succeeded in appealing to the imagination of the nation, and already very marked results have followed. Measured by dollars, it is a fact that in 1908 the United States expended over a million in the campaign against tuberculosis. Never before in its history have so many movements co-operated, and a considerable number of dispensaries and sanatoriums have been opened in the past few months.

This wave of interest has also in a large measure been felt in the Dominion, and there are signs of activity that are extremely gratifying to those who have been appalled by the high mortality from a preventable disease in a somewhat sparsely settled country.

It is a duty we owe to the incoming thousands, that when we so carefully exclude undesirable immigrants those who are allowed a welcome should not discover fewer



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guarantees for their protection than they enjoyed in the congested centres they have forsaken.

It is increasingly true that those who come to us from Britain have been instructed in many ways concerning the disease, and they have been subject to the regulations imposed for its prevention.

The same conditions now obtain in many European countries, and if the necessary measures are adopted by the various legislatures these persons can doubtless be counted upon to assist materially in making them effective. Our Imperial equipment for warfare is known to every Canadian school-boy, but not all adults even are aware of the triumphs of our leaders in public hygiene. Thousands of our newcomers have learned with pride that the mortality from this cause has been considerably reduced in the Old Land, and look with perplexity upon provinces that can scarce tell if their records are increasing or decreasing. Other governments in any event are training our future allies.

## THE METHODS EMPLOYED.

The congress afforded an opportunity for comparative study of methods employed for accelerating the decline in the death-rate from tuberculosis. It was a kind of clearing-house for the nations, and whilst one of the chief results appears in the inspiration for more determined effort, it also served as a corrective. Whilst each country has afforded a trial to all the approved methods, usually some special agency appears to have been commended. This is largely due to the fact that whilst tuberculosis is a germ disease, it is also a social, economic and industrial problem. Possibly this is why some assert that it is not so much a disease as a condition. It is significant that public opinion has materially changed in this respect. So long as it was regarded as hereditary, effort was paralyzed. Since the discovery in 1882 by Dr. Koch of the tubercle bacillus, attention has been largely directed towards the germ. Now the positive factors are receiving attention. Efforts are being made to increase the resisting powers of the population by securing a higher standard of living, with a wider observance of sound hygiene. It is therefore a great educational movement.

Urban populations are devoting increased attention to rural affairs because of their dependance upon agricultural sections for meat and milk. Rural districts are interested in city problems because the congested districts are danger centres to which their youths are introduced, and whence they frequently come to spend their last months of decline, and not infrequently extend the danger. Increased restrictive sanitary regulations are being framed and made effective in every progressive country. England has persisted in the use of isolation hospitals for half a century, and the policy has been amply justified. Scotland has adopted the tuberculosis dispensary system on an extensive scale. Ireland has secured very marked results by the use of travelling educational exhibitions.

Throughout the British Isles increased accommodation is being furnished in sanatoriums; and notification and registration of all cases is being enacted.

Germany has a complete network of sanatoriums, and has developed a remarkable system of insurance.

Denmark is giving most thorough attention to prophylactic measures in dwellings, and the meat and milk supply.

## A CO-ORDINATING CENTRE.

One beneficial effect of this crusade in many large cities has been found in the harmonizing of numerous agencies that overlapped in their operations. It was evident that not every case where theoretic cure was possible was practically curable. The chief problem to be confronted was the management of dependent families where the main cause of dependence is tuberculosis. An economic cure had to be furnished



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even where a pathologic cure was not certain. The result has been that we now have combined medical and social investigation. There is now increased co-operation of health, school, civic and other authorities. We have not only the sanatorium for incipient cases, the dispensary for moderately advanced, and the isolation hospital for advanced, but Canada has furnished an instance of the preventorium for persons who are in the condition of physiological poverty, and provision is also being made to guard against relapse of patients who have been cured, by securing light occupation or other means.

Sanatoriums are still required, but the number of persons who can hope to gain admission will never be very considerable. The sanatorium should be the antithesis of the danger focus. It should be the co-ordinating centre for the municipality, or group of counties, or the province as the case may be. Its function is not precisely the same as it was in 1882, or at any earlier date. Dr. George Bodington, of Birmingham, England, was confident that sanatorium treatment would cure pulmonary tuberculosis, and unfortunately was hindered by hostility in giving adequate proof. The impetus of Dr. Koch's discovery is seen by examining the maps of Germany displayed at the congress, which are dotted over with sites of sanatoriums. There is now no doubt as to cure being theoretically possible; the only doubt is whether such effective co-ordination can be achieved as will ensure the practical possibility. The governments are in touch with many of the problems lying at the root of tuberculosis, and to them we must look for co-ordinating measures amongst their several departments analagous to those now taking place amongst the factors of municipal administration. Tuberculosis calls for more thorough-going confederation.

#### TO EVERY MAN HIS WORK.

If our people were asked to furnish money and men for defence against a foreign foe the outcome is certain. If we can only succeed in convincing every person in Canada that the menace to our national welfare is sufficiently alarming, and also make it clear that this is not like any other disease, as though it was the sole concern of the doctor and health officer, but the symbol for a condition of affairs that it behooves every loyal citizen to assist in removing, we trust the response will be equally patriotic. We must be prepared to assign its proper task to every factor in our complex life. The medical profession now have at their disposal improved methods of detection. Increased emphasis is being placed upon the right of each occupant to a fair share of wholesome water, untainted air, abundant sunlight and worthy occupation under healthful conditions. We are better able to secure a maximum of cures, in less time, and at less cost. It is increasingly evident that that responsibility cannot be wholly placed upon governments of any kind. The individual must refrain from increasing danger to others, and learn to protect himself by maintaining natural immunity. Disease knows no boundaries, and hygiene should be equally widespread. Efforts have long been directed towards securing more bushels per acre, and more milk per cow, and have merited considerable success. We must be equally enthusiastic, and just as ready to recognize biological laws in seeking to secure greater all-round efficiency for every individual. There are many encouraging factors. Our people are of hardy stock, we have few congested centres, the majority of our men are engaged in healthful pursuits, and our educational system covers the land.

Various agencies have been zealously engaged for some time in operations for prevention and cure. We need more sunlight and proper ventilation in the average home; possibly the evolution of a typical Canadian home is even now only in progress. Some cities and towns have far too few public baths and playgrounds; and many public buildings and schoolhouses are not arranged so as to reduce infection to a minimum. Much can be done to reduce our infant mortality, and thus indirectly improve every branch of animal husbandry.



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## PLANS FOR THE FUTURE.

The congress avowed that some conclusions had been reached in the knowledge of the disease, and the methods of dealing with it, and these facts are fast becoming public property. But many problems still await solution, and it is much to ensure a concerted plan for their investigation in the laboratories of the world. Other problems scarcely less perplexing will receive attention in committees and council chambers. Much adjustment is required to perfect the action of various bodies that are concerned with the public welfare.

In the United States there is a difference of opinion as to the function of the federal government.

In Canada, the provinces are dealing with the problem, but there has been no far-reaching concerted action. There is room for difference of opinion as to the functions of the related governments, very much as there is in the United States, but the feeling is growing that the human constitution is greater than the written constitution. Most of the diseases contemplated in health acts can be dealt with by local authorities; but this problem merits the united consideration of all the provinces under the guidance, or with the co-operation of the federal authorities.

The statute-books of all the nations have been amended in the light of discoveries that relate in some way to the prevalence of tuberculosis and its decline. Even if the framers of the British North America Act had given more than scant attention to matters of health, it was then quite impossible to foresee a line of action that has only become visible by the combined energies of all the scientists and statesmen of the world. Some countries are dealing with the matter through a central health bureau; in some instances combined with a national laboratory, or permanent museum devoted to the collection and display of all possible data, and the training of investigators and lecturers.

Commercial supremacy is founded ultimately upon industrial superiority, and in the rivalry and emulation of nations it behooves us to conserve the health of our people even more than our resources. It cannot be too frequently insisted that in our land, devoted as it is so extensively to all branches of husbandry, we are deeply involved in the condition of our animals. Every step that is taken to make them more vigorous and productive is a gain to their health, and the health of those who tend them or feed upon their product. Anti-tuberculosis measures are therefore very powerful humane instruments.

## SUGGESTIONS.

After a careful survey of the material pertaining to the sections of the congress, which considered the sociological aspects of the anti-tuberculosis movement, the following suggestions have been arrived at:—

(1) The preparation of special statistical material, from the department of the census, marine hospitals, reformatories and other institutions, inspection of immigrants, quarantine and food inspection, which will throw any light upon the prevalence of tuberculosis, or conditions in anywise related to it. This may be made the nucleus of a Canadian exhibit, which could be placed within reach of the members of all the provincial legislatures, possibly to itinerate amongst the several houses where the legislatures meet, and furnish a basis for mutual comparison and augmentation. Subsequently this could be displayed in the larger municipalities, and after local analysis returned to the federal authorities. A conference between the federal and provincial authorities would then be likely to achieve very much more than could otherwise be hoped for without antecedent and thorough-going investigation.

(2) This process would be educative for all. It would help to determine if a national bureau or tuberculosis commission are desirable. It would help to unify and strengthen provincial action, and indicate where federal aid is specifically required,



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and it would help to ensure that in Rome, 1911, the Dominion will be in the front rank in the movement for world-wide betterment.

All of which is respectfully submitted.

THOS. HUNTER BOYD,  
*Waweig, N.B.*

The Honourable,  
The Minister of Agriculture,  
Ottawa.

No. 13.

(CHAS. A. L. FISHER, J.P.)

March 31, 1909.

SIR,—I have the honour to submit this my report for the twelve months ended March 31, 1909, as Public Works (Health) Inspector.

The term has again been an exceptional one, in the almost general non-appearance of contagious and infectious diseases among the men, considering the number that have been employed on the various public works of the Dominion, there being no serious outbreaks of smallpox, and only one case of diphtheria, but in the neighbourhood of Kenora, Ont., and immediately east of the Winnipeg river, there have been a good many cases of typhoid fever in the camp hospitals.

I am pleased to be able to report again, that on my several tours of inspection of the public works of the Dominion for the past year, I found the medical service given to be more numerous and complete, and the sleeping quarters and boarding of the men to be fully equal to the very good conditions in that way reported last year.

The following is a detailed report of the works during the past twelve months, as coming, more or less, under the regulations of the Public Works (Health) Act, 1899:—

RAILWAYS.

The number of public works coming under the regulations of the Act have been comprised almost exclusively of railway construction, the building of the National Transcontinental Railway, from Winnipeg to Quebec city, but more especially the opening for traffic of the Grand Trunk Pacific Railway, from Winnipeg to Edmonton, adding greatly to the railway mileage of the Dominion, and opening out a fine tract of agricultural land for immediate settlement.

*Canadian Pacific Railway.*

*Main Line.*—Changing of grade between Laggan and Field, B.C. This work was done by the company; about 65 men were employed, who were housed and boarded in box cars. There was no serious disease, the health of the men and general conditions being good. The local doctor from Laggan attended the men when necessary.

*Crowsnest Line.*—Lethbridge to Macleod, Alberta, change of road about 31 miles. miles.

J. McDonald, contractor. About 100 men were employed, who were housed and fed in box cars. There was no serious disease and the general health was good. The medical attendance was from both Lethbridge and Macleod, with use of General Hospital at former place.

*Moosejaw Branch.*—Tugaski to Outlook, Saskatchewan, 55 miles. J. D. McArthur, of Winnipeg, was the chief contractor. Dutton & Timson, Winnipeg, sub-



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contractors. About 500 men were employed, and located in twenty camps distributed along the route, being housed and boarded in tents by the sub-contractors, and the camps moved about once a month. There was no contagious or infectious disease, and no deaths, the general health and sanitary conditions being good. The water was obtained from wells, and latrines were provided. L. C. Panton was the chief medical officer, and resided at the work. The General Hospital at Moosejaw was used when necessary. This work is now completed.

*Kirkella Branch.*—Strassburg to Lanigan, Saskatchewan, about 54 miles. Mr. Lamb and the British Columbia Construction Company were the contractors. About 200 men were employed, who were housed and boarded in shacks and tents by the sub-contractors.

There had been no serious disease or deaths, the general health and sanitary conditions being fairly good. William Black, M.D., of Winnipeg, was the chief medical officer, with Dr. Kidd, of Lanigan, as district medical officer, who has a hospital and nurse at Lanigan. This work is now completed.

*Connecting Link.*—Bredenbury to Esterhazy, Saskatchewan, about 20 miles, connecting the Manitoba and Northwestern branch with the Pheasant Hills branch. About 100 men were employed, who were housed and boarded in tents by the contractors. The general health and conditions were good, there being no serious disease. The local doctor from Esterhazy was in attendance.

*Extension of the Manitoba and Northwestern Branch.*—Sheho to Lanigan, Saskatchewan, the junction with the Pheasant Hills branch, about 60 miles.

J. G. Hargrave was the chief contractor, who sublet to various parties. About 175 men were employed, who were housed and boarded in tents. The general health had been good, although slough water was being used. Dr. Kidd was the district medical officer, under Dr. William Black.

*Wolseley-Riston Branch.*—Wolseley to Kaiser, Saskatchewan, about 24 miles. J. D. McArthur was the contractor.

About 125 men were employed, who were housed and boarded in tents. The general health was good. Dr. Cook, of Wolseley, was the district medical officer. This work is now completed.

*Weyburn-Sloughton, Saskatchewan, Link.*—About 25 miles, connecting the Regina and Moosejaw lines. About 75 men were employed, who were housed and boarded in tents.

The general health and conditions were good. Medical attendance was supplied from Weyburn, Saskatchewan. This work is now completed.

*Wetaskiwin Branch.*—Extension from Hardisty, Alberta, to near Saskatoon, Saskatchewan, about 48 miles.

J. D. McArthur was the contractor, who lets to several sub-contractors.

About 150 men were employed, who were housed and boarded in tents. The general health of the men was excellent, and the conditions of the camps good.

Hospital tents were provided, and medical attendance given by Dr. Parkman at the eastern end, and Dr. N. D. Mather at the western end.

*Broomhill Branch.*—Lauder to Tilston, Manitoba, about 29 miles. Some 170 men were employed, who were housed and boarded in shacks. The general health was good and the sanitary conditions were fair. Local doctors were in attendance. This work is now completed.

*Winnipeg-Teulon Branch.*—Teulon to Komarno, Manitoba, about 20 miles. The Canadian Pacific Railway Company were doing this work by day labour, about 70 men being employed, who were well housed and boarded by the company.



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The general health and conditions were good, the men being under the charge of a local doctor from Teulon. This work is now completed.

*Double Tracking.*—Winnipeg, Manitoba, to Port William, Ontario. About 2,000 men were employed, who were housed and boarded in shacks and box cars, distributed along the line. The general health and conditions were good, there being no contagious disease, but quite a few cases of typhoid fever. There were also a few deaths from accidents.

Most of the work during the past twelve months being in the neighbourhood of Kenora, Ontario, the two hospitals at that place were used when necessary. W. J. Gunn, M.D., of Kenora, was the chief medical officer, with three assistants under him. Messrs. Foley, Welch and Stewart were the contractors. This work is now completed.

*Toronto-Sudbury Branch.*—From Craighurst to Sudbury, Ontario, about 173 miles. About 200 men were employed, who were housed and boarded in shacks and box cars by the company.

There had been no contagious or infectious diseases, quite a few minor accidents, but no deaths.

The general health of the men had been good. The water supply obtainable was poor, even from wells.

Latrines were supplied, and the sanitary conditions of the camps were good.

There was a permanent hospital established in a central locality, under charge of R. B. Struthers, M.D., who was the district officer of the work.

This work was completed early in the season.

*Walkerton-Lucknow Branch.*—From a point on the Canadian Pacific Railway, near Proton, Ontario, westerly to the town of Walkerton, Ontario, a distance of 37½ miles. Messrs. Macdonald & Stephen, of Durham, Ontario, were the contractors. About 400 men were employed, who were well housed and boarded by the contractors.

There had been several serious accidents, and one death. The general health of the men and the sanitary conditions had been good.

The Walkerton General Hospital, and the Royal Alexandra of Fergus, were used when necessary. Drs. Jamieson and MacLaurin, of Durham, Ontario, were the district medical officers.

This work is now completed.

*Georgian Bay and Seaboard Railway Branch.*—From near Coldwater, Ontario, to a point on Hogg bay, Victoria Harbour, Ontario, about 14 miles, which is under contract to the Toronto Construction Company, of Toronto, and sublet to Messrs. Corbett & Gimlet, of Victoria Harbour.

About 100 men were employed, who were well housed and boarded by the sub-contractors.

There had been no serious diseases, accidents or deaths, the general health of the men and the sanitary conditions good.

The hospital at Midland, Ontario, was used when necessary. William B. Boyd, M.D., of Coldwater, Ontario, was the district medical officer of the work.

This work is approaching completion.

#### *Canadian Northern Railway.*

This company has had under construction during the last twelve months, in Manitoba and the Northwest, ten extensions to its lines in different districts thereof, which goes to show the general development of the country.

There were no contagious or infectious diseases at any of these works, with the exception of eight cases of typhoid fever, and the general health of the men was excellent. The medical service on all construction work was under the supervision of Doctors Mackenzie and Mackenzie of Winnipeg.



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Messrs. Mackenzie, Mann & Company, Limited, Toronto, were the chief contractors for all work.

*Brandon-Regina Line*, 220 miles, which was under sub-contract to the Cowan Construction Company, Limited. In the early part of the season there were about 200 men on the work, but as most of the steel had been laid the previous season, the work was early completed and put in operation.

There had been no serious diseases, with the exception of three cases of typhoid fever, the general health of the men being good. Dr. Cockrin, of Maryfield, was the medical attendant, and the hospitals at Brandon and Regina were used for the typhoid cases.

*Goose Lake Extension*.—Southwest from Saskatoon to beyond Goose Lake, Saskatchewan, about 80 miles, to eventually connect with the proposed Yorktown-Calgary line.

This was under sub-contract to the Northern Construction Company, Limited. About 800 men were employed, who were housed and boarded by the contractors, some in shacks but mostly in tents. The general health of the men was good, there being no serious diseases, with the exception of four cases of typhoid fever, from which there was one death.

Dr. Walker was the district medical officer under Doctors Mackenzie and Mackenzie, and gave the men every attention. The hospital at Saskatoon was used when necessary.

*Rosburn Extension*.—Rosburn to Russell, Manitoba, and thence west. C. J. Merry & Company were the sub-contractors for this work. About 400 men were employed, who were housed and boarded in tents.

The general health of the men had been good, and there had been no serious diseases, with the exception of one case of typhoid fever. There were no deaths and comparatively few accidents.

Hospital tents were provided, and Dr. Evans, of Rosburn, was the district medical officer.

*Hudson's Bay Branch*.—From Hudson's Bay Junction to the pass on the Saskatchewan river, about 89 miles. Steel was being laid the whole length of this work, about 100 men being employed, who were well housed and boarded in tents by the sub-contractors.

There had been little or no sickness, the general health of the men being excellent. Local doctors were employed if necessary.

*Thunder Hill Branch*.—Dalmoney to Laird and westerly, eventually to connect with the Prince Albert line.

About 100 men were employed, who were well housed and boarded in tents. Their general health had been good, there being no serious disease or deaths. They were attended by local doctors.

*Oakland Branch*.—Oakland to Delta, Manitoba.

Only about 60 men were employed, who were housed in tents and were in excellent health, having the attendance of a local doctor from Oakland.

*Oak Point Branch*.—From Oak Point northwesterly.

Only about 50 men were employed, who were well housed and boarded, and in excellent health, being medically supervised by the local doctor from Oak Point.

*Canadian Northern, Ontario, Railways.*

*Toronto-Sudbury Branch*.—Between Parry Sound and French River, Ontario. Track laying and ballasting.



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Angus Sinclair, C.E., contractor.

About 250 men were employed, who were housed and boarded in lumber cabins by the contractor. There were no contagious or infectious diseases, and no deaths, the general health of the men being excellent.

Hospitals at Parry Sound and Sudbury were used when necessary. W. N. Robertson, M.D., was the medical officer in charge.

This work is now completed and operated.

*Key Harbour Camps.*—Wharf and bridge construction. Mackenzie, Mann & Co., chief contractors. R. M. Pratt, C.E., sub-contractor.

About 75 men were employed, who were housed and boarded in lumber cabins. There had been no serious disease or deaths, and the Sudbury hospital was used when necessary. W. N. Robertson was the medical officer.

This work is now completed.

*Key Harbour Line.*—From near the Pockerel Crossing to Key Harbour, Ontario, six miles. Alex. Sinclair, C.E., contractor.

About 75 men were employed, who were well housed and looked after, and had excellent health. W. N. Robertson, M.D., was the attending physician. Work now completed.

*Sellwood Branch.*—Extending north about 22 miles from Sudbury. Angus Sinclair, C.E., contractor.

About 160 men were employed, housed and boarded in log and frame cabins, well built, well ventilated and well located among pine and spruce trees.

There were no serious diseases, and no deaths, a temporary hospital being on the work, under charge of W. N. Robertson, M.D.

*Orillia Branch.*—Udney to Orillia, Ontario, 10 miles. Orillia Construction Company, Limited, contractors.

About 150 men were employed, housed and boarded in good comfortable quarters. There had been no serious diseases, and no deaths. The hospital at Orillia was used, and the men attended by a local doctor.

*Hawkesbury Extension.*—Hawkesbury to Ottawa, Ontario, 58 miles. Messrs. Schell & Kennedy, contractors for grading; Alex. Sinclair, C.E., contractor for track-laying and ballasting.

About 150 men were employed, who were well housed and boarded by the contractors, or lived in their own homes, and they were attended by a local doctor from Rockland.

This work is well on towards completion, and has been delayed owing to the route through Ottawa not having been decided on.

#### *Canadian Northern, Quebec, Railways.*

*Extension of Main Line.*—Garneau to Quebec, 80 miles. Messrs. O'Brien & Mullarky, Montreal, contractors.

About 200 men were employed, some of them being housed and boarded by the sub-contractors, but many of them boarding with surrounding farmers.

There had been no serious diseases, or deaths, the general health of the men, the water supply and the sanitary conditions being good. R. Frigon, M.D., of St. Casimir, and F. Trudel, M.D., of St. Stanislas, were the medical officers.

The grade has been completed, and most of the steel laid, and it will be ballasted and completed in the near future.

#### *Grand Trunk Pacific Railway.*

This road is being built by the Grand Trunk Pacific Railway Company, and as at present constituted, is lined out to run from Winnipeg, Manitoba, to Prince Rupert,



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British Columbia, and to have a number of branches therefrom. It has been sublet to various contractors, and the Prairie section, extending west of Edmonton and totalling 914 miles, is approaching completion.

The Eastern portion thereof, comprising 666 miles, from Winnipeg, Manitoba, to Wainwright, Alberta, having been completed and put in operation, a tri-weekly train service having been running thereon since September last (1908).

The men employed were mostly housed in tents or boarding cars, and owing to the frequency of removal, the sanitary conditions of the camps were good, and the general health of the men excellent, the various contractors and sub-contractors, together with the medical officers (with few exceptions) doing their best under the circumstances to carry out the regulations of the Public Works (Health) Act.

J. Alex. Hutchison, M.D., chief medical officer of the company at Montreal, takes full charge of the medical work on the construction as far as the end of the Prairie Division, west, and has two division assistants, Dr. Leney, of Winnipeg, and Dr. Hislop, of Edmonton.

In the following more detailed report of the work on this road, I am indebted to the courtesy of Dr. Hutchison for the information as to sickness, accidents, deaths, &c., on the work during the past year.

*Mountain Division.*—From Prince Rupert, British Columbia, east, 100 miles. Messrs. Foley, Welch & Stewart, chief contractors.

About 2,000 men are employed, who are well housed and boarded in tents and log cabins by the contractors.

The sanitary condition of the camps has been well attended to, and the general health of the men has been excellent. There had been no contagious diseases, and few deaths.

F. J. Ewing, M.D., is the chief medical officer of the work, resides at Prince Rupert, and maintains a good hospital there, provided with hospital assistants, and besides has two medical assistants who regularly visit the various camps.

*Prairie Division West.*—From Edmonton, Alberta, west to Wolfe Creek, the end of the Prairie section, 129 miles west of Edmonton, most of the grading is done, and for the first 50 miles west from Edmonton rails are being laid. Messrs. Foley, Welch & Stewart were also the contractors for this work.

About 650 men were employed, who were well housed and boarded in tents by the contractors. The sanitary conditions of the camps were good, there had been no serious disease and the general health of the men was excellent. Dr. Hislop, of Edmonton, was the division medical officer, and Dr. Culton, of Wabamun, and Dr. Scott, of Pembina, the district medical officers. Hospital tents were provided, but the General hospital at Edmonton was used when possible.

*Prairie Division West.*—From Edmonton, Alberta, to Wainwright, Alberta, the commencement of the West division of the Prairie section. Messrs. Foley, Welch & Stewart were the chief contractors.

About 1,100 men were employed, who were housed and boarded in tents, located in twenty-one camps, distributed over sixty miles.

The sanitary condition of the camps was fairly good, and the general health of the men excellent, but early in the month of May last, several cases of smallpox developed in the camps surrounding the Battle River Crossing, and these with some suspects, had to be strictly quarantined in separate tents. The disease was of a very mild form, and through the immediate and close attention given the matter by Dr. Hislop, the divisional medical officer, Dr. Burrow from Edmonton, the provincial health officer, and Dr. Steele, the district medical officer on the work, the disease was confined to men from only three camps, and was soon eradicated and the quarantine raised. Isolation tents were provided, and an hospital was maintained at Battle River Crossing, under the charge of Dr. Steele, who resided thereat. Besides the division medical officer, four district medical officers were employed.



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This work is nearing completion, steel being laid, and a train service will likely be in operation to Edmonton during the summer.

*Prairie Division East.*—Comprised of 666 miles from Winnipeg, Manitoba, to Wainwright, Alberta. J. M. Leney, M.D., of Winnipeg, is the division surgeon, under Dr. Hutchison.

There were different sections in this division, which were let to various contractors. About 1,500 men had been employed, who were housed and boarded in tents or board shacks by the various contractors.

The sanitary conditions had been fairly good, and the general health of the men excellent. There had been no outbreak of contagious or infectious diseases, and very few accidents or deaths.

In this division there were nine district medical officers, as under, viz.:—

Dr. J. E. Lundy, Portage, Manitoba; Dr. W. A. McLeod, Melville, Manitoba; Dr. F. G. Schwalm, Rivers, Manitoba; Dr. P. C. Crosby, Miniota, Manitoba; Dr. B. A. Sandwith, Nokomis, Saskatchewan; Dr. E. W. Hixon, Watrous, Saskatchewan; Dr. G. R. Peterson, Saskatoon, Saskatchewan; Dr. S. J. Staples, Biggar, Saskatchewan; Dr. J. E. Middlemass, Wainwright, Alberta.

General hospitals at various towns adjacent to the line of construction were used when necessary.

This work has all been completed and put in operation.

*Fort William Branch.*—From Fort William, Ontario, to Superior Junction, Ontario, the connecting point with the Transcontinental Railway, about 200 miles.

Messrs. Foley, Welch & Stewart were the contractors, with headquarters at Dinorwic, Ontario.

About 1,000 men were employed, mostly located over the northwestern twelve miles of the route. They were housed and boarded in wooden buildings by the contractors.

The sanitary conditions were fair, and the general health of the men good, but a good many cases of typhoid developed. A well equipped hospital was maintained at Grassey (now Wako), in charge of F. H. Callahan, M.D. F. J. Ewing, M.D., was the chief medical officer for the contractors, and had a hospital and headquarters at Fort William.

On the completion of the grade the company took over the medical care of the employees during the track-laying, &c., with Dr. G. E. McCartney, of Fort William, as division surgeon.

The above report *re* construction and medical service on the route of the Grand Trunk Pacific Railway covers a total mileage of 1,114 miles, over which, and among the large body of men employed, there were:—

41 cases of typhoid fever.

9 cases of smallpox.

1 case of diphtheria.

3 cases of measles.

1 case of scarlet fever.

During the laying of steel, the medical department under Dr. Hutchison kept an hospital car at the end of the steel, with a medical officer in charge, both on the Fort William branch and the Prairie section; this, as far as I am aware, is the first work on which a special hospital car has accompanied the laying of steel.

#### *National Transcontinental Railway.*

This road is being built by the Dominion government, and at present all the sections have been given out on contract, between Winnipeg and Moncton, New Brunswick, and are with one exception now under construction.

I am pleased to report that on my visit to the works on said sections I found excellent hospital accommodation provided, the men comfortably housed and well fed,



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the camps in good sanitary condition, and a duly qualified physician as district medical supervisor over each section of camps, which could be conveniently covered by him within the requirements of the regulations.

There had been no serious outbreak of contagious diseases, and the health of the men had been excellent, with the exception of some cases of typhoid fever.

I give below the extent and location of camps, with other particulars of the works carried on by the various sub-contractors.

Section from Winnipeg east to junction of Grand Trunk Pacific branch, from Fort William, 245 miles. This is under contract to Mr. J. D. McArthur, of Winnipeg.

J. K. McLennan, M.D., of Winnipeg, is the chief medical officer on behalf of the contractor, with J. R. Gunn, M.D., as medical superintendent at Kenora, Ontario, which is central to the work, and he has ten district medical officers, resident at various points along the route, and excellent hospital accommodation is provided where necessary.

*St. Boniface, Manitoba, Camps.*—J. D. McArthur, contractor. These camps were seven in number distributed between St. Boniface and Reynie, and were comprised of ballasting gangs, train-filling gangs, track-laying gangs and fence gangs.

About 550 men were employed, who were housed and boarded in tents and boarding cars. As they were weekly on the move, the sanitary conditions were all right, and the general health of the men good.

There were two cases of typhoid, two of scabies and one of pneumonia. The hospital at St. Boniface was used. W. G. Lyall, M.D., was the district medical officer.

This part of work now completed.

*Ingolf, Ontario, Camps.*—Oleson & Larson, sub-contractors. Rock work and grading. These camps are 15 miles north of Kalmar, a station on the Canadian Pacific Railway, and can be reached by team to Malachi lake, and then by boat.

Three hundred men were employed thereat, and distributed over five camps, No. 1 being Lake Malachi, No. 2 west two miles, No. 3 west four miles, No. 4 west six miles, and No. 5 at Rice Lake. The men in each camp were housed and boarded by the sub-contractors in good board and log buildings. There had been ten cases of typhoid fever, and one of erysipelas, but there were no other developments of contagious or infectious diseases, and there were two deaths, one from drowning and one from typhoid. The general health of the men and the sanitary conditions of the camps were good. A permanent hospital was provided at camp No. 1, but the General Hospital at Kenora, Ontario, was used when advisable.

The water supply was fairly good and taken from wells and lake. Latrines were provided at each camp.

P. McRitchie, M.D., was the resident district medical officer.

Two of these camps are closed, work being completed.

*Kalmar, Ontario, Camps.*—Guy Campbell and P. Sullivan, sub-contractors. Rock work principally, and extending seven miles. There were two main camps, known as No. 1 and No. 3, No. 1 being at Otter lake, and No. 3 two miles east. There were also two smaller camps known as No. 2 and No. 4, and two other camps known as Sullivan's No. 1 and No. 2. 420 men were employed thereat, housed and boarded by the sub-contractors in comfortable log and frame buildings.

There were two cases of typhoid and one of tuberculosis, with one death among the men, and only a few minor accidents. The general health of the men was good, and the condition of the camps throughout excellent.

Water from wells was used for drinking purposes, and lake water for general use. Latrines were provided at all camps.

The permanent hospital at camp No. 1, Lake Malachi, was used, but the General hospital at Kenora, Ontario, would be used in case of necessity. P. McRitchie, M.D., was the district medical officer of this work also.

Two of these camps are now closed.



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*Winnipeg River Camps.*—Chambers Bros., McQuigge & McCaffrey, sub-contractors. Ten miles of grading and rock work.

These camps are located fifteen miles north from Kenora, Ontario, a station on the Canadian Pacific Railway, and can be reached from there by boat up the Winnipeg river, to Winnipeg River Crossing, thence overland one or two miles.

Three hundred men were employed thereat, located in three camps, situated west of the Winnipeg river and housed and boarded by the sub-contractors in comfortable board and log buildings.

There had been no cases of contagious or infectious diseases, with the exception of six cases of typhoid. There had been minor accidents, and eleven deaths, nine from explosion and two from typhoid. The general health of the men and the sanitary conditions of the camps were good.

The water supply was good and was from lake and springs. Two latrines were provided for each camp. Temporary hospital quarters were provided with a permanent hospital east of the McFarland river, and the general hospitals at Kenora were used when necessary.

R. Wightman, M.D., was the resident district medical officer of these camps.

*Winnipeg River Camps.*—Dutton & McArthur, sub-contractors. Five and one-half miles of grading and rock work. There were nine camps situated east of the McFarland river, and 800 men were employed on the work, who were housed and boarded by the sub-contractors in comfortable board and log buildings.

There had been fifteen cases of typhoid fever, but no other cases of contagious or infectious disease. There were several accidents, and one death. The general health of the men and sanitary conditions of the camps had been fair.

The water supply was good, and two latrines were supplied for each camp. There was a permanent hospital conveniently located for the various surrounding camps, with an hospital orderly and graduated female nurse employed thereat, under charge of R. Wightman, M.D., who was the district medical officer of this work.

Five of these camps are now closed, the work being completed.

*Winnipeg River Camps.*—McCaffrey & Hicks, sub-contractors. Two miles of rock grading. One camp situated fifteen miles east of Winnipeg River Crossing.

One hundred men were employed on the work, and were housed and boarded by the sub-contractors in log buildings. There had been one case of typhoid, one accident and no deaths. The general health of the men had been good, and the permanent hospital at Winnipeg River Crossing was used when necessary.

Robert Wightman, M.D., was the district medical officer of this camp.

The work is now completed.

*Hawk Camps.*—Welch Bros., Thompson & Egan, T. D. Sullivan and A. J. McDougald, sub-contractors. Grading, filling and rock work. There were nine camps located at Wild lake and Spectacle lake. These camps are some miles north from Hawk, a station on the Canadian Pacific Railway, and can be reached by team and canoe from there, or from Margach, another station on the Canadian Pacific Railway, direct by canoe, with several portages to make.

Eight hundred and thirty men were employed thereat, housed in log buildings and boarded by the sub-contractor.

There had been eight or ten cases of typhoid fever, no accidents and six deaths. Good water was used for drinking and culinary purposes, and the general health of the men was good and the sanitary condition of the camps was properly looked after.

There was a good hospital (known as Wild Lake hospital) erected on a point of the lake opposite camp No. 1, which was in charge of J. O. Walker, M.D., as resident and district medical officer thereof. Two trained female nurses and an hospital orderly were employed at said hospital.

Four of these camps are now closed, work completed.



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*Vermilion Bay Camps.*—Anderson & Johnson, sub-contractors. Grading, rock work and filling. There had been fourteen camps, the first of which is located fifteen miles north of Vermilion, a station on the Canadian Pacific Railway, and can be reached by team from there. 1,005 men were employed thereat, housed in log buildings, and boarded by the sub-contractors.

There had been thirty-eight cases of typhoid fever and one case of pneumonia, but no other contagious or infectious diseases. Three accidents and sixteen deaths, thirteen from typhoid, one from pneumonia and two from accidents. The general health of the men, the water obtained and the sanitary condition of the camps all first-class.

There is a permanent hospital at Parson's camp No. 1, a few miles north on a good road and boat route, that is used when necessary.

H. L. Sims, M.D., is the resident district medical officer of this work.

Nine of these camps are now closed, the work being completed.

*Vermilion Bay Camps.*—W. T. Parsons, sub-contractor. Rock work chiefly. These camps are situated about eighteen miles from Vermilion Bay, and reached by team. 880 men were employed, who were located in fourteen camps, situated on Canyon lake, and housed and boarded in good log buildings by the sub-contractor.

There have been fifty-five cases of typhoid, but no other contagious or infectious diseases, seven serious accidents and seven deaths. The general health of the men had been good, and the sanitary conditions of the camps very fair. Good water is obtained from Canyon lake, and latrines are provided for each camp. A good hospital has been established at W. T. Parson's headquarters camp, with an orderly and trained female nurse employed.

D. G. Dingwall, M.D., is the district medical officer residing at these camps.

Most of these camps are now closed, the work being completed.

*Dryden, Ontario, Camps.*—George H. Webster, sub-contractor. Fourteen miles of rock and earth work. The camps were eleven in number, the first situated some eighteen miles north from Dryden, Ontario, a station on the Canadian Pacific Railway, and reached by team from there. 855 men were employed on the work, who were boarded and housed in good log buildings by the sub-contractor.

There had been thirty-two cases of typhoid, but no other contagious disease, two accidents, seven deaths from dynamite explosion, three from accidents, three from typhoid, one drowned and one from natural causes. The general health of the men had been excellent, and the water and sanitary conditions of the camps good. A permanent hospital is established at No. 4 camp (which is headquarters), employs a hospital orderly and a trained female nurse, and is under the charge of John Brandon, M.D.

Nine of these camps are now closed, the work being completed.

*Wabigoon, Ontario, Camps.*—Eastern Construction Company, sub-contractors. Sixty miles of rock and earth work.

There were ten camps running from the extreme easterly end of the McArthur contract, and reached by team from Wabigoon and then by boats and portages. 1,200 men were employed on the work, who were housed in good log and board buildings, and well boarded by the sub-contractors.

The general health of the men had been excellent, and the water supply and the sanitary condition of the camps good. There had been about forty cases of typhoid, but no other contagious or infectious disease, and only two serious accidents. There was one death from pneumonia, one from falling rock and eight from typhoid.

Dr. Nasmith took the fever and was laid up three months, being temporarily replaced by Dr. Williams, who also took the disease, and after apparent recovery and convalescence died suddenly on his way out. A permanent hospital was maintained at the headquarters camp (No. 2) and was provided with an hospital orderly and a trained female nurse.



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W. W. Nasmith, M.D., was the district medical officer residing at the camps. These camps are now all closed, the work having been completed.

*Superior Junction Section.*—From Superior Junction east 150 miles, to junction of the Western section, let to Messrs. E. F. and G. E. Fauquier. This is under contract to Messrs. O'Brien, Fowler & McDougall Bros., who have their headquarters at Fort William, Ont.

Dr. J. E. Josephs, of Pembroke, Ontario, is the chief medical officer for the contractors, and Dr. J. M. McGrady, of Port Arthur, is the officer in charge on the work, and two district medical officers are in charge of two hospitals thereon.

Access to the work is from Fort William, over the branch of the Grand Trunk Pacific Railway to Superior Junction.

*Superior Junction Camps.*—The Eastern Construction Company, Messrs. Bonfield & Harvey, Messrs. W. and A. McDougall Bros., and A. McGougan, C.E., being the sub-contractors.

About 840 men are employed, who are located in eleven camps, and housed and boarded in log and board buildings by the sub-contractors.

There has been no contagious or infectious disease, and the general health of the men and the sanitary conditions are good. There have been several accidents, and two deaths from explosions. A good hospital (No. 1) is maintained for these camps, located on the work about twelve miles from Superior Junction. W. Graham, M.D., is the district medical officer of these camps, with residence at the hospital.

*Wako Camps.*—Entrance thereto from Fort William via Wako, Ontario. Messrs. Finlayson & Barry, Quebec Constructing Company, and Messrs. Reed & McEwen are the sub-contractors.

About 720 men are employed, who are distributed over seven camps, and housed and boarded in log buildings by the sub-contractors. The general health of the men and the sanitary conditions of the camps are good.

There had been no serious accidents, no contagious or infectious diseases, and no deaths. A good hospital is maintained (No. 2) some miles east from No. 1, and is in charge of E. B. Oliver, M.D., who resides there, and is the district medical officer of these camps.

*Nipigon Section.*—From the east end of O'Brien, Fowler & McDougall Bros. contract, east 75 miles. This is under contract to Messrs. E. F. and G. E. Fauquier, of Ottawa, who have sublet it to the Nipigon Construction Company, Limited, who have their headquarters at Nipigon, Ontario, a station on the Canadian Pacific Railway, and from which access is had to the work.

Albert Laidlaw, of Kenora, Ontario, is the chief medical officer, and has two district medical officers on the work.

*Nipigon Camps.*—Messrs. McCaffrey & McQuigge, Sherwood & Russell and H. Synn & Co. are the sub-contractors from the Nipigon Company. There are six camps, access to which is by a tramway of fifteen miles, and boat over Lake Nipigon.

About 400 men are employed, who are housed and boarded in log buildings by the sub-contractors. There has been no contagious or infectious disease, the general health of the men and the sanitary conditions of the camps being good. There were two serious accidents, and eight deaths from explosions. There is one hospital maintained, and Drs. H. Bryan and J. H. Browning are the district medical officers in charge at the work.

*Abitibi Section West.*—From about eight miles west of the Abitibi River Crossing, westerly for 100 miles.

This is under contract to Messrs. E. F. and G. E. Fauquier, of Ottawa. Access thereto is had from Cochrane, Ontario, the northern terminus of the Temiskaming and Northern Ontario Railway.

A. Henderson, M.D., is the chief medical officer of the work.



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*Abitibi West Camps.*—Messrs. Fortum & McNulty, Hamer & O'Kelly, John Mackay, Messrs. Johnson & Beveridge, Andrew Zehsron, Messrs. Patterson & Overn, and Messrs. Armstrong & Steward are the sub-contractors.

About 1,400 men are employed, who are located in fourteen camps extending over fifty miles of the work, and they are housed and boarded in log buildings by the sub-contractors.

There were ten cases of typhoid but no other contagious or infectious diseases, with the exception of one case of smallpox which developed at the camp of Armstrong & Steward, which was immediately isolated and quarantined, and recovery made without other cases developing. There was one death from fever, but no serious accidents, the health of the men and the sanitary conditions of the camps being good.

There are two well fitted hospitals on the work, the chief medical officer, Dr. Henderson, residing at one and visiting the camps adjacent, and C. A. Carmichael, M.D., residing at the other and visiting the camps adjacent thereto.

*Abitibi Section East.*—From about eight miles west of the Abitibi River Crossing, easterly for 150 miles.

This section is under contract to the Grand Trunk Pacific Construction Company, and was sublet by them to the J. H. Reynolds Construction Company of St. Louis, U.S.A., but as they failed to make sufficient progress thereon, their contract was annulled, and it was again sublet to Messrs. Foley, Welch & Stewart, who have their headquarters at Matheson, Ontario, and are now doing the work.

The entrance to this work is also from Cochrane, Ontario. A hospital is maintained at the work. John McCombe, M.D., is the chief medical officer, and D. B. Kennedy, M.D., is the district medical officer.

*Abitibi East Camps.*—There were a number of small camps, mostly station gangs, scattered over the route, there being about 300 men in all, who were housed in log shacks and either boarded themselves or were boarded by the sub-contractors.

There have been no serious diseases, accidents or deaths, the general health and conditions being good.

There was a hospital at Abitibi Crossing, and D. B. Kennedy, M.D., was the district medical officer.

*Eastern Section, District 'B.'*—From a point a few miles northwest of La Tuque village, to a point known as Weymontachene, a distance of about 45 miles. This section was let to the Grand Trunk Pacific Construction Company, and was sublet by them to Messrs. Macdonnel & O'Brien. There were fifteen sub-contractors under Messrs. Macdonnel & O'Brien on this section, who had twenty-four camps, and employed about 1,700 men, who were housed in good log buildings and boarded by the sub-contractors on the work.

There had been ninety-two cases of typhoid and one of tuberculosis, eight serious accidents and twenty-one deaths, mostly accidental. The sanitary condition of the camps, the quality of water used and the general health of the men were good. James Franckum, M.D., was the district medical officer of the westerly camps of the section. A good-sized hospital was erected and maintained at the 'Little Farm,' Vermilion river, with an hospital orderly employed. B. Donovan, M.D., was the district medical officer of the middle camps, with residence at the hospital, and J. C. Byers, M.D., district medical officer of the eastern camps of the section, who is in charge at present. John McCombe, M.D., is the medical supervisor of the work on behalf of Messrs. Macdonnel & O'Brien, and takes charge of the St. Maurice hospital five miles from La Tuque.

Some of the camps have been closed, their work having been completed.

A daily train is running on the line for about twenty miles west from La Tuque.

*Quebec Section.*—From a few miles northwest of La Tuque village, southeast 100 miles, to junction of section of sub-contract let to Messrs. M. P. and J. T. Davis. This is under contract to Messrs. Macdonnel & O'Brien, of Montreal.



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There were four sub-contractors, having eight camps and employing about 700 men. There had been no contagious or infectious disease, serious accidents or deaths, the general health of the men and the sanitary conditions of the camps being fairly good. John McCombe, M.D., was the chief medical officer for the contractors, and maintained a good hospital about four miles southeast from La Tuque.

R. A. Hughes, M.D., was the district medical officer, and resided at the hospital.

These camps and the hospital were closed before the epidemic of typhoid broke out in the camps west from La Tuque, the work having been completed.

*Section from Quebec Bridge.*—Fifty miles northwest. The contract for this work was given to Messrs. Macdonnel & O'Brien, of Montreal, together with the section reported above as being constructed by them, but they sublet these fifty miles to Messrs. M. P. and J. T. Davis, of Quebec, who constructed the same, with three sub-contractors under them, Messrs. Lothain, Rainboth, Roberge and Chagnon.

Several hundred men were employed thereon, but there were no special camps, the men living in their own homes, or boarding with residents scattered along the line.

There had been no contagious or infectious diseases, and no deaths, but there were four minor accidents. The general health of the men and the sanitary conditions were good, the water supply being fair.

J. P. Lavoie, M.D., of Quebec, was the chief district medical officer when the work first commenced, with A. Marcotte, M.D., as resident district medical officer at St. Basile, P.Q. Later on local doctors were employed when necessary.

This work is now completed.

*Quebec Section, District 'B.'*—From a point near Quebec bridge easterly for a distance of 150 miles. This section was let to Messrs. M. P. and J. T. Davis, of Quebec, who have sublet it in small sections.

J. E. Parent, M.D., of Quebec, is the chief medical officer of the whole work.

There were twenty sub-contractors on the work during the past twelve months. About 3,350 men were employed, who were located in fifty-eight camps distributed along the route, and housed and boarded in good quarters by the various sub-contractors.

There had been no contagious or infectious diseases, only two fatal accidents, and thirteen deaths, eleven being from one explosion, one from falling rock, and one murder. There were seven hospitals maintained at various points along the route, and the General hospital at Lévis was used when advisable.

The district medical officers in charge of camps at various points along the route were: Donat Bernier, M.D., of St. Anselme, Que.; Leon Blais, M.D., of Armagh, Que.; J. E. A. Cloutier, M.D., of Cap St. Ignace, Que.; L. A. Garneau, M.D., of St. Anne Station, Que.; H. W. Blagdon, M.D., of St. Philippe de Neri, Que.; C. Bourget, M.D., of St. Eleuthera, Que., and J. L. P. Richards, M.D., of Baker Lake, N.B.

Thirty-five of the above camps have closed, their work having been completed.

*New Brunswick Section, District 'A.'*—From a point near Grand Falls, westerly to the boundary between the provinces of New Brunswick and Quebec, a distance of about 62 miles.

This was let to Messrs. Lyons & White, who have made their headquarters at Edmundston, N.B., and have sublet the work to various sub-contractors, seven in number, who had about 1,000 men employed and located in about twenty camps distributed along the whole route. There had been seven cases of smallpox (mild type) and twelve cases of typhoid, but no other contagious or infectious disease. There were four deaths, three from typhoid and one from explosion. The general health of the men and the sanitary condition of the camps had been fairly good. The General hospital at St. Basile, N.B., was used.

Doctors P. H. Laporte, J. A. Guy and C. G. Main were the district medical officers, each covering about twenty miles of the work.

About twelve of the above camps have closed, their work having been completed.



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*Grand Falls Section, District 'A.'*—From a point near Grand Falls, N.B., to Plaster Rock, N.B., 31½ miles.

This is under contract to the Willard, Kitchen Company, who have made their headquarters at Grand Falls, N.B.

There were eleven sub-contractors, and about 950 men employed, who were located in thirteen camps, covering the contract.

There had been no contagious or infectious disease, with the exception of six cases of typhoid, no serious accidents and one death, the general health of the men being excellent, and the sanitary condition of the camps good.

A temporary hospital was maintained at Grand Falls. B. A. Puddington, M.D., and Charles B. Rouleau, M.D., were the district medical officers of the work there, and J. D. Coffin, M.D., of the camps near Plaster Rock.

This work is well advanced, but no camps have been closed.

*Plaster Rock Section, District 'A.'*—From Plaster Rock to Chipman, N.B., 107 miles. There were two divisions in the above distance, one of 67 miles and one of 40 miles, both under contract to the Grand Trunk Pacific Construction Company, who sublet them to the Toronto Construction Company, who make their headquarters for the work at Plaster Rock.

*Plaster Rock Camps.*—East from there about 26 miles. Johnson Bros. are the sub-contractors, having several camps, and employing about 500 men, who were housed and boarded in good board camps by the sub-contractors.

There had been no contagious or infectious disease, serious accidents or deaths, the health of the men and the general sanitary conditions being good.

A hospital was provided at Plaster Rock. J. D. Coffin, M.D., was the district medical officer and supervisor of the work.

*Chipman Camps.*—From the junction of the Plaster Rock camps, east to Chipman. There were ten sub-contractors, and 1,450 men were employed, who were located in twenty-seven camps scattered over the route.

There had been no contagious or infectious disease, but there were five deaths: three from explosions and two from other accidents. The general health of the men and the sanitary conditions of the camps were good. The men were housed and boarded in good log and board buildings by the sub-contractors.

An excellent hospital was maintained at Chipman, N.B., by H. B. Hay, M.D., who was the chief medical officer of these camps, and had L. Chapman, M.D., and A. Sterling, M.D., as district medical officers.

*Chipman Section, District 'A.'*—From Chipman, N.B., east eight miles. John W. McManus Company were the contractors. There were two camps with about 75 men employed, who were housed in log and board buildings, some boarding themselves, others boarded by the contractors.

There had been no serious diseases, but one death from accident. The general health and sanitary conditions were fairly good. H. B. Hay, M.D., was the medical officer of the work, and his hospital at Chipman was used.

*Moncton Section, District 'A.'*—From eight miles east of Chipman to Moncton, N.B., 50 miles. This is under contract to the Grand Trunk Pacific Construction Company, and was sublet by them to the Corbett, Floesch Company.

About 450 men were employed, who were well housed and boarded by the sub-contractors, with the exception of a few who lived in the locality.

There had been no serious diseases, but one death from explosion, with a few minor accidents. The general health of the men was good, and the sanitary conditions excellent. The hospital at Chipman, and the General hospital at Moncton were used. H. B. Hay, M.D., of Chipman, is the chief medical officer, and attends the men in the



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western camps, and A. R. Myers, M.D., of Moncton, attends the men of the eastern camps.

Considerable work has been done on this contract, and some rails are laid.

*Intercolonial Railway.*

*Double Tracking.*—From Moncton to Painsee Junction. McManus & Company were the contractors, and employed about 150 men, who were housed and boarded by the contractors in temporary camps.

There were no serious diseases, accidents or deaths. A. R. Myers, M.D., was the medical officer of the work, which is now completed.

On all the above public works, during the past twelve months, there was an average of 34,085 men employed.

There were 399 cases of typhoid fever,

18 cases of smallpox,

1 case of diphtheria,

7 cases of erysipelas,

6 cases of tuberculosis,

13 cases of scabies,

4 cases of measles,

1 case of scarlet fever,

160 deaths,

108 qualified medical officers.

In closing this report for the twelve months ended March 31, 1909, I am pleased to be again able to draw your attention to the very few cases of contagious and infectious diseases (with the exception of typhoid fever), considering the very large body of men employed; also to their general healthfulness, the good sanitary conditions of most of the camps, and the attention given by the contractors and medical officers in trying to fulfil the regulations of the Public Works (Health) Act, 1899.

I have the honour to be, sir,

Your obedient servant,

CHAS. A. L. FISHER,

*Public Works (Health) Inspector.*

The Honourable

The Minister of Agriculture,  
Ottawa.



## APPENDIX No. 14.

## SPECIAL MANGE ORDER FOR SASKATCHEWAN AND ALBERTA.

Whereas the disease of mange exists among cattle throughout those portions of the provinces of Saskatchewan and Alberta, which may be described as bounded by the international boundary, the Rocky mountains and a line drawn as follows:—

A line from the Rocky mountains along the northern boundary of the Stoney Indian reserve to the line between ranges 5 and 6 west of the 5th meridian, thence north along that line to the line between townships 28 and 29, thence east along that line to the line of the Calgary and Edmonton Railway, thence north along the Calgary and Edmonton Railway to the line between townships 30 and 31, thence east along that line to the line between ranges 26 and 27 west of the 4th principal meridian, thence north along that line to the line between townships 34 and 35, thence east along that line to the Red Deer river, thence north along the Red Deer river to the line between townships 38 and 39, thence east along that line to the 4th principal meridian, thence south along the 4th principal meridian to the Red Deer river, thence along the Red Deer and Saskatchewan rivers to the line between ranges 7 and 8 west of the 3rd meridian, thence south along that line between townships 10 and 11, thence east along that line to the line between ranges 20 and 21 west of the 2nd meridian, thence south to the international boundary line.

## CATTLE FOR IMMEDIATE SLAUGHTER.

1. Cattle intended for immediate slaughter or for export to Europe shall not be removed or allowed to move out of the above described tract, nor shall any railway company accept or load any such cattle for shipment, except under the following conditions:—

(a) Cattle other than those consigned to Winnipeg or to points in Canada east of Winnipeg shall be removed or allowed to move out of the above described tract, either by rail or otherwise, only when accompanied by the certificate of an inspector of the Department of Agriculture, stating that they have been examined by him and have been found free from infection of mange and other contagious disease.

(b) Cattle consigned to Winnipeg or to points in Canada east of Winnipeg, whether originating within the above described tract or not, shall be inspected at Winnipeg, and no railway company shall release such cattle at Winnipeg, or load such cattle for reshipment therefrom, until they have been submitted by daylight to an inspector of the Department of Agriculture and certified by him to be free from mange and other contagious disease.

(c) When cattle are shipped for immediate slaughter or for export, they shall not be sold or otherwise disposed of for any other purpose, and any infraction of this provision shall be deemed an infraction of the Animal Contagious Diseases Act, and dealt with accordingly.

## CATTLE FOR PURPOSES OTHER THAN IMMEDIATE SLAUGHTER.

2. Cattle intended for grazing, feeding, breeding purposes or milk production, or for any purpose other than immediate slaughter, shall not be removed or be allowed to move out of the above described tract, nor shall any railway company accept or



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load any such cattle for shipment unless they are accompanied by the certificate of an inspector of the Department of Agriculture stating that they have been, within a period of thirty days immediately preceding the date of shipment, treated under the supervision of the said inspector and in a manner satisfactory to him.

3. Cattle found on inspection to be affected with mange or other contagious or infectious diseases, shall be dealt with as may be ordered by the inspector.

4. At points where cattle originating in the said tract are unloaded, they shall be placed in special yards, and such yards shall be used for no other purpose and be cleansed and disinfected when so ordered by an inspector.

5. All cars and other vehicles used for the carriage of cattle originating within the said tract shall be cleansed and disinfected to the satisfaction of an inspector as soon as possible after being unloaded and before being used for any other shipment.

6. All way-bills and bills of lading accompanying shipments of cattle originating within the said tract shall have plainly written or stamped across the face thereof a notification that the said cars are to be cleansed and disinfected immediately after being unloaded.

7. Cattle affected with, or which have been exposed to the contagion of mange, may be shipped by rail for immediate slaughter to points within the above described tract under the following conditions:—

(a) They must before being loaded, be inspected by a veterinary inspector who shall issue a license in proper form for their removal to a given destination, and who must further personally see them loaded, and that the cars conveying them are duly billed to the said destination, and to no other, and that the following provision is complied with:—

(b) Cars conveying such cattle must bear a placard having clearly printed thereon, in letters not less than six inches long, the words 'Mangy cattle for immediate slaughter.'

(c) Unless loaded through special yards and chutes reserved exclusively for such shipments, all yards and chutes, weigh scales or other appliances, used by them, shall be declared infected places, and shall not be again used for the shipment of healthy stock until cleansed and disinfected to the satisfaction of an inspector; they shall not be allowed to come in contact with other animals; shall be consigned direct only to such slaughter-houses within the hereinbefore described tract as are provided with private yards and chutes; shall not be unloaded at any point en route, and shall, under no pretext whatever, be removed alive from the slaughter-house or yards and premises immediately connected therewith.

(d) Cars conveying such cattle shall be cleansed and disinfected to the satisfaction of an inspector immediately after being unloaded, and until this has been done, the placard above referred to shall not be removed under any pretext whatsoever.

8. The transit of cattle through the said tract is permitted subject to the following regulations:—

(a) Cattle for transit by rail through the said tract from one part of Canada to another shall, at points where unloading is necessary, be placed in yards reserved for their exclusive use, and shall not be permitted to come in contact with cattle which have originated within the said tract.

(b) Cattle imported from the United States into the said tract destined for points in Canada outside thereof may, under compliance with quarantine regulations, and with the provisions of the next preceding paragraph hereof, be permitted to pass without unnecessary delay through the said tract direct to their destination without further restrictions.

*Vide Canada Gazette, vol. xli, p. 3098.*



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## APPENDIX No. 15.

## EXHIBITIONS.

SEATTLE, March 31, 1909.

SIR,—I beg to submit the following report on the operations of the Canadian Government Exhibition Commission for the year 1908.

## FRANCO-BRITISH EXHIBITION, SHEPHERD'S BUSH, 1908.

According to your instructions, I went to London in the middle of July, 1907, to meet the members of the committee of the Franco-British Exhibition, and secured the site which you had yourself visited in the first days of the same month. This site was secured for the price of twelve thousand pounds sterling (£12,000), which I consider a very reasonable one if we take into consideration the location and the large space which was allotted to us, viz., 140,000 square feet. This area of land may perhaps look rather large, but I think it was a good move on our part to secure as much, because one must not forget that at an exhibition of that magnitude the buildings must be in such a position as to be easily seen from a distance, and enough land must be secured around the buildings to leave sufficient space to leave it clear from the small buildings, kiosks, &c., that are too often placed near the large pavilions and spoil all the effect their sight produces on the public. As an example, I will mention the case of Australia, which had obtained a certain quantity of land from the executive of the Franco-British Exhibition, which, when the Australian pavilion was about to be completed, rented to the *Daily Mail*, newspaper of London, a space precisely in front of the building, on which a building was erected, which completely blocked up the principal view from one of the main thoroughfares of the exhibition. This led to a great deal of controversy between the interested parties, and even legal proceedings followed, instituted by the Australian authorities against the executive of the Franco-British Exhibition. I do not know how the matter was settled, but the *Daily Mail* pavilion remained where it was, and it was the general opinion among exhibitors and the public that this was a very unfortunate state of affairs for Australia, which could have been avoided if enough space had been secured.

Basing the cost of our exhibit in London, with all expenses added, at four hundred thousand dollars (\$400,000), and calculating the floor and wall space covered by the building at eighty thousand (80,000) feet, the cost of our exhibit would be about five dollars per foot. This is very much less than the cost of exhibits in buildings belonging to the Franco-British Exhibition Company, where space was secured at the rate of ten shillings per foot, and if I add to this the cost of installation and maintenance, I know of many exhibits that cost as high as ten dollars per foot.

On the site we secured, a pavilion measuring 350 x 140 feet was erected. The plans were prepared early in November, but they had to be submitted to the London County Council, who delayed us a long time by their refusal to approve the plans before certain radical modifications were done. After considerable discussion and delay, a compromise was arrived at, and the work was started. The large firm of Humphreys & Company, contractors and builders, London, were given the charge of the construction, and held themselves responsible for the work in consideration of a commission of fifteen per cent on the cost of the building. This included architect's,



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surveyor's and inspector's fees. We also had a great deal of difficulty in getting the necessary materials, especially the steel, which could not be delivered at the time agreed upon. Of course the installation work could not be started before the completion of the pavilion, although a large portion of the decoration scheme (decorative panels, transparencies, &c.) were being prepared whilst the construction work was going on.

The official opening of the Franco-British Exhibition took place on May 14, but the general opinion was that it should have been postponed to a later date, as most of the buildings were not ready and the roads in very bad order. The Canadian building was at this time in just as good a shape as several of the pavilions that had opened their doors to visitors, but I did not think it advisable to give admittance to any one until everything was complete. On June 11 we were ready for the public, and the rush of visitors to our pavilion started immediately. Our building was crowded at all hours until the last minute of the exhibition.

Now, I may be permitted to say here that I really believe it was a good thing for Canada that its pavilion did not open at an earlier date, for the reason that the newspapermen who had then nearly exhausted the subject on the other exhibition buildings, grew enthusiastic on the opening of the Canadian pavilion, and would write column over column, vying between them in their complimentary remarks about Canada, its palace, display of exhibits, &c., which writings constituted for us a priceless advertisement such as would have been otherwise impossible to obtain.

The policy laid down by you to make an exhibit that would convince people that it was a Canadian exhibit and not a gathering of separate provinces, was more noticeable at London than at any exhibition we have participated in. Whilst I feel that it is odious to make comparisons, I think that in this case I may be permitted to make one, because in doing so I am only voicing the opinion of the people and newspapers, and that is by comparing the exhibit of Australia with ours. The Australian exhibit was composed of good natural and manufactured products, but shown as from distinct provinces or states, duplicated in many cases, and the name Australia was lost immediately when one entered the building; and, as remarked by many, there was a want of unison.

In the Canadian pavilion, the inside decorations were for the greatest part made of wheat. The sides of the central portion of the hall were ornamented through their whole length with trees composed of wheat ears, which sprang out of the columns of the side arcades and spread their branches along the walls over a ground-work of green cloth, while at frequent intervals were placed transparencies of Canadian scenes all framed in wheat ears. The central trophy which dominated the entire hall, consisted in the upper part of a red hopper inscribed 'Canada's Red Grain Hopper,' from which diverged four cornucopias wreathed with wheat ears on a red ground. The faces of the trophy were adorned with the portraits (transparencies) of King Edward, Queen Alexandra, the Prince of Wales and the Princess of Wales. When illuminated these transparencies had a beautiful effect.

At the north end of the hall was shown a large mineral map of Canada, with the portraits of Lord Strathearn and Lord Grey on the sides. A large alcove behind the map contained a tableau ('Past and Present') representing the march of the wheat grower and of civilization from the cultivated lands towards the North Pole. That alcove also contained a large number of specimens of the fauna of the country. This exhibit proved a very good attraction.

At the other end of the hall was a railroad map of Canada, which had on either side portraits of the 'Nation Builders': Sir Wilfrid Laurier and the late Sir John A. Macdonald. Below was placed the fish exhibit.

The middle of the east side of the hall was occupied with forestry and wood industry exhibits. A prominent position was given to the pulp and wood pulp specimens. Amid the wood logs a stream of water flowed into a pool containing some live beavers.

In the middle of the west side was the horticultural exhibit. In this section was placed a tableau depicting an orchard and illustrating Canada's possibilities as a



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fruit-producing country. The different varieties of apples were arranged on dishes placed on numerous small tables, while preserved fruits were set around the spacious alcove, along with advertising matter on panels and cards.

One of our main attractions was the butter exhibit. Life-size representations of King Edward meeting President Fallières ('Entente Cordiale' allegoric group); the meeting of Jacques Cartier with the Indian Chief Donnacona in 1535; the bust of the Canadian Minister of Agriculture; baskets of roses, &c., the whole of which made in Canadian butter. There was also a good display of other dairy products, such as cheese, &c. Canadian hams and bacons were also on exhibit. These perishable goods were kept in good showing condition by means of a refrigerating plant which had been installed in the building by the firm of H. J. West & Company of London.

Our mineral exhibit, which occupied the northern end of the hall, formed a complete collection of the specimens of all the minerals discovered and known in Canada. Transparencies showing views of Canadian mines and mining operations gave a finished touch to the display.

We had a good exhibit of tobacco, coming especially from the counties of Joliette, Montcalm and Essex.

Whilst we had some manufactured exhibits which were a credit to Canada, we had others which were not fit for exhibition purposes. I think it is very unfortunate that the sole purpose of some exhibitors is to introduce their goods on the market without regard to the quality. Whilst I admit it is a good thing to try and obtain trade, it must be borne in mind that the public base their appreciation of our products on the kind of goods that are on exhibit, because they invariably say: 'If this is the best they make, what would be the kind they would sell us?' Therefore I think it will be well if in the future we are going to put up an exhibit of manufactured articles in the British Isles or in a foreign country, that they should be of high-class quality and nothing but the very best that could be procured.

Notice boards in both French and English were placed on view all through the building, and conveyed to visitors facts about the country, its industries, railways, immigration policy, &c. Pamphlets embodying the same information with greater fulness were carried away by several hundred thousands of people, and I believe that effective advertisement was obtained through our distribution of literature. The most popular and widely circulated newspapers of England, such as the *Times*, the *Daily Telegraph*, the *Daily Mail*, &c., published enthusiastic reports about our exhibit.

We received a large number of inquiries dealing with industrial and commercial matters. In order not to show any partiality towards any particular business or industrial firms, instructions were given to refer all inquiries to the boards of trade or chambers of commerce of the cities or places in which the respective interested industries or business men were located. I may, however, say that all the goods exhibited by our Canadian manufacturers have attracted a great deal of attention, and judging from the inquiries we received, business relations must have originated or increased to a large extent between business men of Canada and Europe.

In several instances we received inquiries from people of Turkey, Egypt, India, Argentine, &c. London being the metropolis of the commercial world, merchants from all parts of the globe are constantly going there to buy or sell goods, and Canada while exhibiting in London naturally benefited from these circumstances.

The members of this staff were constantly busy answering questions to intending settlers or tourists. For definite information, however, the inquirers were referred to the Canadian Emigration Offices, 11-12 Charing Cross, London. Positive instructions were given to the staff not to encourage any one who would not settle on the land to come to Canada, as the government offered advantages only to the farmer, insisting at the same time on the fact that no employment or position could be guaranteed to other classes of emigrants.



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## SCOTTISH NATIONAL EXHIBITION, EDINBURGH, 1908.

I am glad to report that Canada's participation at the Scottish National Exhibition was also a marked success.

Although our pavilion at Edinburgh was only sixty feet square and the grounds one hundred and ten feet, we used our allotted space and the sum of money we had at our disposal to the best advantage. It must be borne in mind that the Scottish National Exhibition did not come up to the standard of exhibitions I have attended in the past, and as our exhibit was installed in an attractive manner, which I could not say for many exhibits shown at that exhibition, we became very noticeable by producing the finished article, and it was the universal opinion of visitors at the exhibition that our pavilion and our exhibit were a credit to Canada.

We received a great number of visitors every day, and literature on Canada was distributed freely, which no doubt contributed to a large extent to make our country known among the Scottish farmers, who are such a desirable class of settlers.

After the close of the Franco-British and Scottish National exhibitions, the Canadian buildings both at London and Edinburgh were sold for the best price obtainable; the gentlemen appointed for the term of both exhibitions left for home, whilst some members of the staff remained in London to see to the packing of the exhibits, some of which were to be stored in London and others shipped either to Canada or Seattle. On December 24, accompanied by the other members of the commission, I sailed for Canada. Upon my arrival in Ottawa, I immediately started preparing our participation in the Alaska-Yukon-Pacific Exposition, to be held in Seattle this year. I reached the latter place in the beginning of February, when I gave the contract for the erection of our pavilion, which is now progressing satisfactorily, and the necessary steps are being taken to have everything ready for the opening of the exhibition, which is fixed for the 1st of June next.

The whole respectfully submitted.

WM. HUTCHISON, -

*Canadian Exhibition Commissioner.*

The Honourable  
The Minister of Agriculture,  
Ottawa.



## APPENDIX No. 16.

## TOBACCO.

OTTAWA, March 31, 1909.

SIR,—I have the honour to submit herewith a report of the work done by the Tobacco Division, from April 1, 1908, to March 31, 1909.

The latter part of the spring of 1908 was spent in laying out our experimental plots and preparing our seed beds at the Central Experimental Farm, Ottawa. An important object in preparing these seed beds this year was to make an experiment in sterilizing vegetable earth with two agents, most generally used for this work: water vapour under pressure and formalin. The results of this experiment are given in Part II of Bulletin No. A-6 of the Tobacco Division, published in January, 1909.

Our research work has been extended, and the number of varieties tested in 1908-1909 has been much larger than formerly. The intention was to make a closer study of certain types of tobacco and of the use to which they might be put in Canada. It was with this object in view that the Brewer Hybrid and Hazlewood were introduced in the Experimental Farm along with certain varieties from Wisconsin and Ohio. As a result of this limited test in 1908, these varieties are now grown on a larger scale in Quebec and Ontario experimental stations. It was hoped that the Brewer Hybrid would give us a product suitable for wrappers, finer than our present Canadian Comstock; the Hazlewood, a product for filler more aromatic than the Havana seed leaf and the Canadian Comstock, which are sometimes used as fillers in the manufacture of cigars.

The Big-Ohio grown at Ottawa has given a very fine crop. The product is well developed, with a rather fine texture; it gives a larger yield in weight and has perfectly ripened within the period available in this part of Canada. This tobacco is attracting more and more attention, and before long it will probably be used in the preparation of light cut tobacco for pipe or cigarette, provided, however, that it is given suitable curing.

Two assistants were adjoined to the Tobacco Division in June, 1908. Mr. O. Chevalier was put in charge of some agricultural work in the province of Quebec; and Mr. W. A. Barnett in charge of the work in Ontario and other English speaking provinces.

Mr. Chevalier superintended an experiment with fertilizers carried on at St. Césaire, and the results of his observations for the campaign 1908-9 are reported in Bulletin No. A-5 and in Part II of Bulletin A-6 of the series of the Tobacco Division. These bulletins contain valuable information concerning the present situation of tobacco lands in the province of Quebec, the methods of cultivation which it is urgent to adopt in order to maintain or renew their fertility, and the use of farmyard manure and chemical fertilizers in tobacco culture.

Mr. Barnett gave special attention to a study of the conditions under which the culture of tobacco is carried on in the province of Ontario. The results of his work are stated in Bulletin No. A-4, entitled 'Report on the Tobacco Industry in Ontario,' which was printed in English only. This bulletin contains a summary of the methods of culture followed by tobacco growers in Ontario, and presents interesting remarks on the improvements which should be effected in order to secure a lasting increase in the yields, and the establishment of a uniform and improved type of the Burley variety.



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Besides the testing of new varieties and the continued study of various tobaccos already examined last year, our work at the Central Experimental Farm has included a study of the various methods of growing seed plants. The results arrived at in this preliminary study are mentioned in Bulletin No. A-6, Part I, of the Tobacco Division. The conclusions stated in this bulletin will, it is hoped, be acted upon by our growers of tobacco seed, and the varieties best adapted to our soils and climate will henceforth be kept pure, much to the benefit of the tobacco industry.

Through our experimental plots at St. Césaire we were able to make a splendid selection of seed plants, and the product of this special culture (about 10 lbs. of selected seeds) has been distributed to the growers of tobacco in St. Césaire and Montcalm towards the end of March last. This is the first official distribution of seeds of Canadian tobacco. Good results are expected from it, and we hope further to extend the growing of seed plants during the campaign of 1909-10. We will then have reached the object aimed at for two years: the production of our own seed in Canada, and the establishment of acclimatized varieties in certain sections.

Towards the latter part of the summer of 1908 a special mission was accomplished in Virginia and North Carolina. In the course of this mission we were able to make a study of the methods of culture of yellow American tobaccos and of the special curing processes in use. The practical result of this mission was the establishment of an experimental station in Essex county which, whilst being chiefly devoted to the study of the methods susceptible to effect an improvement in the production of Canadian Burleys, will also take up the culture of yellow tobaccos of the Virginian types.

As to the general results of the campaign of 1908-9, the following statements may be made:—

That in Quebec the proportion of industrial tobaccos is continually increasing. The quality of some of these products cannot be contested; certain manufacturers were enabled thereby to open new establishments for sorting and curing.

The results obtained this winter with tobaccos grown in the vicinity of Montreal (Rouville, Montcalm), and particularly at Farnham, are quite remarkable, and form the best object lesson that can be had of the future of 'wrapper type' in the province of Quebec.

In Ontario, the area in tobacco was greatly reduced in 1908, and the setting out of the plants was done very late. However, we were able to study a variety of improved Burley, the growing of which will be started on a large scale in 1909, and under better conditions, on our experimental station.

Lastly, the establishment of special stations in Essex, Ontario, and in Montcalm and Rouville, Quebec, puts us in a position to obtain practical results, as they permit us to make local demonstrations of some methods of culture which, we trust, will enable us to improve our products, increase our yields, and satisfy the ever-increasing needs of the tobacco industry in Canada.

I have the honour to be, sir,

Your obedient servant,

F. CHARLAN.

The Honourable  
The Minister of Agriculture,  
Ottawa.



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## APPENDIX No. 17.

## INTERNATIONAL INSTITUTE OF AGRICULTURE.

*J. G. Rutherford, V.S., H.A.R.C.V.S.*

OTTAWA, March 31, 1909.

SIR,—I have the honour to present my report as delegate from Canada to the Permanent Committee of the International Institute of Agriculture covering the period between the date of my appointment in May, 1908, and the last meeting of the committee in November of the same year.

Although I was also a delegate to the General Assembly, I have not touched upon the proceedings of that body, with which you, as head of the Canadian delegation and vice-president of the Institute itself, are entirely familiar.

As you have informed me that you propose to deal in your annual report with the origin of the Institute and the earlier stages of its history, prior to the holding of the first regular meeting in May, 1908, I will, therefore, confine myself to a brief relation of my own experiences as a member of the Permanent Committee, and to such comments and remarks on the organization and work of the Institute as, in my opinion, are most worthy of note.

Leaving Ottawa on May 7, I proceeded to London, where through the courtesy of Lord Strathcona, High Commissioner for Canada, I was promptly put in touch with Lord Carrington, President of the British Board of Agriculture, and with other officers of his department interested in the work of the Institute.

I found that Sir Thomas Elliott, Permanent Secretary of the Board, and also the official delegate of Great Britain and Ireland, had already gone to Rome. As the date fixed for the first meeting of the Permanent Committee, namely, May 23, was rapidly approaching, I remained in London no longer than was absolutely necessary, and starting on the 19th, reached Rome on the evening of the 21st.

Immediately upon my arrival I presented my credentials to Sir Thomas Elliott, who, having been a member of the British delegation which attended the first meeting called in 1905 by His Majesty, the King of Italy, to consider and discuss the original project, was familiar with every phase of its history. He very kindly and courteously then and thereafter, extended to me the full benefit of his knowledge and experience, which, I need scarcely say, were of the greatest possible value, giving me, as they did, a grasp of the whole situation, which otherwise would have been difficult if not impossible of attainment.

I soon found that, as usual, when many men of many minds, and especially of many nations, are gathered together to discuss any project, there were many opinions, and many points of view. The natural tendency to divergence of thought under such circumstances, was in this case accentuated by the fact that the scheme under discussion was one of the most remarkable and extraordinary which had ever been proposed in the whole history of mankind.

That all the civilized nations of the world should unite in forming a cordial commercial union, for the purpose of conducting jointly a business office, and that in the Eternal City itself, was unquestionably a proposition to make men think. As the thinking was in full swing and was being done by thoughtful men, whose minds had all been trained in different schools, and whose views were coloured by their national, to say nothing of their individual, characteristics and environment, it is not surpris-



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ing that the viewpoints varied widely, and that there were many different conceptions of the future work and well-being of the International Institute of Agriculture.

Ideas were in the melting pot and although the furnace was not yet in full blast, the process of solution had already begun.

Conferences were constantly being held, and discussions more or less animated, according to the national temperaments of those taking part, were everywhere in evidence.

It was soon apparent that unless the delegates of the greater nations could be brought to agree upon some line of policy reasonably definite and mutually satisfactory, before the actual meetings began, there would be more argument than action and but little hope of a logical outcome. Fortunately for all concerned, the delegates from the larger and more important countries were, almost without exception, men of sound sense, good judgment, and more or less diplomatic experience.

This being the case, compromise became the order of the day, and by giving here and taking there, the adoption by these gentlemen, of a general policy, so far at least as the initial steps were concerned, was soon rendered possible.

On Saturday, May 23, the Institute was formally opened by His Majesty the King of Italy, Victor Emmanuel III, who was accompanied by the Queen and his Imperial suite, as also by many members of the Italian government and other prominent personages.

The opening took place in the magnificent building in the Villa Borghese, specially erected by His Majesty for the accommodation of the Institute.

This building which was at that time, scarcely completed but which was almost finished at the time of the later meeting in November, is an exceedingly handsome and commodious structure. From an architectural point of view, it leaves nothing to be desired, while it is sumptuously furnished and decorated throughout with fine specimens of modern Italian art. Its situation is excellent, commanding a beautiful view of St. Peter's and the Hills across the Tiber.

Speeches of congratulation on the successful opening of the Institute were addressed to His Majesty by M. Signor Tittoni, Minister for Foreign Affairs, Senator Count Faina, President of the Royal Commission, and His Excellency M. De Carvalho-e-Vasconcellos, Portuguese Minister at Rome, who, as the oldest member of the Diplomatic Corps had been selected to speak on behalf of the Foreign delegates.

In these addresses, as was perhaps natural under the circumstances, His Majesty the King of Italy was given the entire credit for the formation of the Institute, although among the delegates from other countries there was a very general feeling that the name of Mr. David Lubin, who first conceived the idea of such an international organization and to whose energy and enthusiasm its actual realization was due, might at least have been mentioned.

On Monday, May 25, the Permanent Committee met for the first time in one of the fine rooms of its new palace. The following is a list of the delegates present, the names of the countries being arranged alphabetically:—

Argentine Republic—His Excellency M. R. Saenz Pena, Argentine, Minister of Italy.

Austria—M. le Chev. de Pozzi, Statistician to the Imperial Department of Agriculture.

Belgium and Luxemburg—M. O. Belle, Director of the Department of Agriculture.

Bulgaria—M. C. Scraphimoff, Governor of the Agricultural Bank of Bulgaria.

Chili—M. L. S. Rodriguez, Consul General for Chili at Rome.

China—M. Tching, Soud Tchai, Secretary of the Chinese Legation at Rome.

Costa Rica—M. R. Montealegre, Costa Rican Minister at Rome.

Cuba—M. C. de Pedrosa, Chargé d'Affaires de Cuba pres le Gouvernement Italien.



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Denmark—M. H. H. Konow, Danish Consul at Rome.

Egypt—His Excellency Boghos Pascha Nubar.

France—M. Louis Dop, Asst. Chief of the Cabinet, Dept. of Agriculture, Paris.

Great Britain and Ireland—Sir Thomas Elliott, K.C.B., Permanent Secretary of the British Board of Agriculture, London.

Australia—M. J. W. Taverner, Agent General for Victoria in London.

Canada—M. J. Gunjon Rutherford, Veterinary Director General and Live Stock Commission.

India—Sir Edward Buck, K.C.S.I.

Germany—M. Dr. Mueller, Member of the Upper Council.

Hungary—M. E. Miklos de Miklosvar, Former Secretary of State for Agriculture, and Member of the Upper House.

Italy—M. le Count E. Faina, Senator du Royaume.

Japan—M. M. Kameyama, Chargé d'Affairs for Japan at Rome.

Mexico—M. G. A. Esteva, Mexican Minister at Rome.

Montenegro—M. G. Volpi, Director General of Monopolies of the Principality.

Netherlands—M. H. J. Lovink, Director General of Agriculture.

Norway—Dr. A. Fjelstad, landed proprietor and farmer.

Portugal—His Excellency M. de Carvalho e Vasconcellos, Portuguese Minister at Rome.

Roumania—M. Fleva Nicholas, Roumanian Minister at Rome.

Russia.—M. le Baron M. Korff-Schmising, Member of the Russian Embassy at Rome.

Spain—M. Echeverria Auguste.

Sweden—M. le Baron, C.N.D., de Bildt, Swedish Minister at Rome.

Switzerland—M. J. B. Pioda, Swiss Minister at Rome.

Servia—M. B. J. Soubotitch, Secretary of the Servian Legation at Rome.

United States of America—M. David Lubin.

The proceedings were opened by M. Pompilj, Under Secretary of State for Foreign Affairs, who briefly welcomed the delegates on behalf of His Excellency Signor Tittoni, Minister of Foreign Affairs, who was unfortunately ill and therefore prevented from attending in person. M. Pompilj asked that the delegates proceed to nominate a president and vice-president to the Permanent Committee, who might immediately enter upon their duties.

In reply His Excellency M. de Carvalho-e-Vasconcellos, delegate for Portugal, Dean of the Diplomatic Corps in Rome, who had, at an informal meeting of the delegates, been selected to speak on their behalf, expressed thanks for the courteous reception which had been extended to them by His Majesty the King of Italy and by His government, and great regret that His Excellency Signor Tittoni was unable to be present. He then proposed the name of Count Faina, the delegate for Italy, as president of the Permanent Committee of the International Institute of Agriculture, adding that he felt sure that in so doing he was expressing the unanimous sentiments of his colleagues.

Count Faina having been elected by acclamation, and having on motion, taken the chair, expressed his thanks to the assembly for the honour of his selection to direct the work of the committee, and the hope that, with their assistance, he would be able to justify the confidence which they had reposed in him. He then suggested the name of M. E. Koch, representative of His Majesty the King of Italy, and who had been, from the first, intimately connected with the work of the Institute, as a most suitable person to fill the office of Secretary General. This proposal was immediately adopted by the committee.

The President then announced that two matters remained to be dealt with, namely the selection of a vice-president, and the choice of an official language.

Upon motion of M. Louis Dop, delegate for France, supported by Sir Thomas Elliott, delegate for Great Britain and Ireland, it was agreed that the nomination



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of a vice-president should be postponed until all the adhering countries had named their proper official representatives.

The question of the official language to be used in the meetings of the committee evoked considerable discussion in which many of the delegates took part. It was finally decided that French should be the official language of the Permanent Committee, but that delegates might be permitted, as an exception, to use another language in debate.

It was also decided that delegates should be permitted to introduce technical experts to assist them in their duties by explaining special matters, and should occasion require, by acting as interpreters.

The real business of the meeting then began.

With the view of facilitating matters, the Italian Government had, through a specially appointed Royal Commission, prepared a project for the work of the Institute, copies of which had been previously sent to the governments of the adhering nations. This project, while expressing the views of Italy, found but little favour in other countries, inasmuch as in many respects, it was not in strict accordance with the provisions of the international agreement reached in 1905.

Many of the delegates had come to Rome with definite instructions to oppose this Italian project. The Government of France had devoted special attention to the subject and had prepared a lengthy and comprehensive minute, which, while expressing the most friendly spirit towards and kindly interest in the Institute, pointed out that it would be impossible for the French representative to agree to many of the propositions embodied in the Italian project. In this minute the views of France were clearly and concisely set forth, and were undoubtedly entirely consistent with the terms of the convention.

The instructions of many other delegates were generally in accordance with the views of France, and the Italian project was finally rejected as a basis of discussion, its place being taken by a new project, prepared, so far as the first meeting was concerned, by a special sub-commission selected from among the delegates to the Permanent Committee.

A copy of this will, I presume, be embodied in the historical portion of your own report. This being the case, I have not thought it advisable to reproduce here either the Italian project, or the French criticism of that document.

The debate which led up to the appointment of the special sub-commission, above referred to, was very interesting, and, as it embodies in full the opinions of the French and German delegates, and, in this way, throws much light upon the objects of the Institute, I have thought it advisable to include it in my report.

On the following day, May 26, M. Lovineck delegate from the Netherlands proposed the following resolution:—

‘Whereas, it will be necessary to convoke the General Assembly of the International Institute of Agriculture during the current year, in order that the Institute be not delayed in exercising its proper functions; and

Whereas, having this in view, it would be desirable to present to the adhering governments, as soon as possible, a definite plan of organization, and a programme of the work to be done, in order to give them time to approve the same and to give the necessary instructions to their respective delegations; and

Whereas, the Permanent Committee would find itself confronted by grave difficulties if it attempted to deal with all the details of a definite project in the course of general discussion;

Therefore the Permanent Committee after having summarily discussed the project presented by the Royal Italian Commission, resolves as follows:—

First—To name a Commission ad hoc, composed of twelve members and charged with the preparation of the details of the plan of organization and of the operation of the Institute, taking into account the wishes and proposals expressed in the general



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discussion, as also the Italian project. (Members of the Permanent Committee from each country to have the privilege of taking part in the sittings of the Commission.)

Second—To ask the Commission to work in such a manner that the propositions relative to the organization of the programme of work and to the financial budget might be submitted with the least possible delay to the Permanent Committee.'

He presented at the same time, a list of twelve delegates whom he suggested as members of the Commission.

M. Louis Dop, delegate from France, explained the reasons why he could, so far as he was concerned, accept the proposition of M. Lovineck only on condition that all the members of the Committee might be admitted to take part directly in the work of the Commission, and asked that the nomination of the Commission should be deferred until the Permanent Committee had finished the general discussion of the plan of organization of the Institute.

M. Fleva, delegate from Roumania, while fully appreciating the arguments advanced by M. Dop, pressed the Committee to divide the two questions. He proposed to enter immediately into a general discussion of the Italian project, and to reserve until afterwards the question of the names of the Commission.

M. Louis Dop, delegate for France, agreed and together with M. Lovineck, submitted to the Committee the following proposition:—

'The Permanent Committee resolves to proceed to the general discussion of the plan of organization, taking for a basis, the project prepared by the Royal Italian Commission.'

M. De Carvalho e Vasconcellos, delegate for Portugal, emphasized the necessity of having rules of order and proposed to adopt, as provisional, those used in the discussions of the International Conference of 1905.

The President, after reading the Rules of Order of 1905, pointed out that some of these were not applicable to the present case.

The proposition of the Portuguese delegate was, however, unanimously accepted.

The general discussion upon the Italian project was opened by M. Louis Dop, delegate from France, who spoke as follows:—

'The government of the French Republic, which has done me the honour of appointing me as its delegate to the International Institute of Agriculture, took part in the most thorough and active fashion in the initial steps for the creation of this Institute in June, 1905.

France is proud and happy in the thought that most of the propositions made by her in the conference of 1905, were accepted, to form, with the consent of the adhering states, the Articles of the final Act, which, to-day, governs our proceedings.

The prominent part which my country played in 1905 in furnishing a happy solution of the problem which was submitted to the deliberations of the conference, imposed on France the direct duty of manifesting, from the beginning, her intention of co-operating steadily in the grand work for which we are now gathered here. This is the reason why the government of the French Republic has, as in honour bound, assumed the agreeable duty, of nominating a permanent delegate to the International Institute of Agriculture from the moment of its being notified of the meeting of the Permanent Committee.

It is for me an honour to represent here the agricultural interests of France. This great honour confers upon me at the present moment the pleasure of interpreting faithfully the sentiments of profound gratitude which fill the hearts of all the French people for the noble initiative of His Majesty the King of Italy, Victor Emmanuel III. This sentiment of appreciation will remain in the hearts of my compatriots the good peasants and farmers of our beloved France eternally, like the great royal work which is to-day crowned with success in so complete a fashion.

France experiences also a sweet emotion at the thought that the generous initiative of the beloved sovereign of a beloved nation has conferred upon humanity a



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new instrument of union, of universal peace and concord. We must to-day assure ourselves of the proper progress and operation of this instrument.

Animated as we all are with a lively desire and firm wish to have our respective countries benefited by the new institution, we must be inspired in the performance of our duties by the spirit of understanding and solidarity, and the sentiments of devotion to our united interests, which have animated the Royal Italian Commission and its eminent President, Count Faina.

In the name of France I proffer to our sympathetic President and the members of the Commission which he has directed with so much ability and distinction the homage of gratitude.

I would fail also in a very agreeable duty if I did not observe that our very distinguished Dean, His Excellency the Portuguese Minister, M. de Carvalho-e-Vasconcellos has interpreted faithfully and eloquently our common sentiments. I trust that he will permit me to proffer him the sincere thanks of my country, as I also address them to our excellent colleague and friend M. Lubin, whose generous and far-sighted idea permits us to-day to know each other better and therefore to esteem each other more.

We must not however permit ourselves to believe gentlemen and dear colleagues, that our institution is a mutual admiration association; now that the duties of gratitude have been accomplished we must go to work with a view of showing to the farmers of the entire world that we are fully conscious of and have a definite idea of our duties and of the responsibilities which rest upon us.

What should be our method of work? What principles should direct our efforts in searching for a satisfactory and early solution of the problem submitted to us?

Gentlemen, the beauty of this palace which we owe to royal munificence is emphasized and illumined by a series of happy mottos which remind us that Italy is also the land of classics to which we owe the greater part of our intellectual culture.

In order to inspire and direct our labours I would have wished to suggest to the able architect of this palace that a motto, less literary but more symbolical, should have been inscribed on the wall of the chamber which shelters us and our duties.

The sentence which I have in mind is a synthetical and concise expression of the decisions of the Conference of 1905, namely:

‘The Institute is a State Institution.’

From these words is derived the essential principle contained in the last paragraph of Article 9:—

‘All questions relating to the economic interests, the legislation and administration of any particular state, must be excluded from the sphere of the Institute.’

These two great fundamental principles constitute the very spirit of the final act of the Conference of 1905.

It follows therefore that we must consider this Act as a constitutional charter, a guarantee of our independence and our liberty, a charter to inspire, to direct and to limit our decisions and our acts.

From the point of view of the French Government, all the decisions of the Permanent Committee should flow from these sources, as a corollary follows the demonstration of a given theorem.

We are here, gentlemen and dear colleagues, in an assemblage where science, pure and simple, should be the inspiration of all our acts.

You will therefore regard as only natural my endeavour to apply to our work the method of Descartes, which can be perhaps for us a guiding thread through the labyrinth of ideas and projects arising from the problems submitted to our deliberations.

The essential principle of the Cartesian method is, as you are aware, that of elimination.



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Let us then eliminate from our programme everything which is not strictly included within the letter and the spirit of the final act of 1905.

What must we eliminate?

(1) The details of the organization and operation already provided for in the Convention of 1905;

(2) The details of operation incompatible with a state institution, as for example, official or private correspondence of the Institute, taken from sources other than official or those under official control;

(3) All the details of organization and of registration of agricultural labour outside of the special case of the rates of pay expressly provided for by the Act of 1905;

(4) All acts or decisions empowering the Institute to initiate meetings of private associations;

(5) Any intermediary role between associations or co-operative societies;

(6) Every procedure which might possibly confer on the Institute the power of communicating with States, otherwise than through the medium of official delegates, or to receive directly information from private associations, otherwise than through the official medium of governments.

Such is gentlemen, in the opinion of the French government, the negative part of our programme so far as refers to scientific questions, an opinion which I shall have the honour to explain and defend, as the various questions come up for discussion.

But have no alarm gentlemen; the programme conceived by the French government will not be a negative programme.

Our scientific method of elimination can only result in the adoption, according to the Pasteur school, of a method of reconstruction, capable of giving body and soul to the different living elements.

Let us then adopt, for the formation of the concrete and practical part of our programme, the experimental method, which is alone capable of keeping us free from self deception, and of assuring the ultimate success of our decisions.

If we rigorously apply this method, we need only provide for the Institute such working parts as will enable us to immediately attain our purpose.

Now experience and reason teach that the only goal immediately attainable is the grouping or amalgamation at the Institute of all the statistics gathered by the different countries, possessing at the moment an official service of agricultural statistics and information.

A majority of the great States of Europe and America have already organized in their respective countries such offices of statistics and information.

Let us confine ourselves for the moment to the creation at Rome of a Bureau of centralization of comparison and of unification of these different informations. In doing this we shall have already accomplished a very important work sufficient in any event to occupy, during its first stages, the energy of the Institute.

Let us leave to the future the care and development of the seeds sown in a fertile and well prepared soil.

'Let us be modest' is the formula of our success.

Let us study to confine our ambition to results easily and speedily realized. Let us consider only as a desirable, but at present an unattainable ideal, the various functions of acting as an intermediary between associations, of acting as a Bureau of emigration, as an inspirer of congresses, as a regulator of prices and markets, or in the formation of unions and federations among associations and co-operative societies, &c., such as some generous spirits would wish to have our Institute undertake.

Let us, for the present, leave these functions to the different States and leave to the statistics which we shall publish and to the farmers who will read them, the task of drawing practical conclusions which these official statements contain.



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As regards the practical organization of our offices, the French government would willingly agree from the inception of the work of the Institute, to the formation of five bureaux, as follows:—

(1) Bureau of the Secretary General; internal administration; staff and material; accounts.

(2) Library, archives, printing, distribution of printed matter, department of publications, bibliography.

(3) Bureau of agricultural statistics, charged with paragraphs (a), (b) and (c) of Article 9 of the Convention.

(4) Bureau of plant diseases charged with paragraphs (d) of Article 9 of the Convention.

(5) Bureau of co-operation, of assurance and of agricultural credit, charged with paragraphs (e) and (f) of Article 9 of the Convention.

Such are, gentlemen and dear colleagues, the scientific principles which have inspired and dictated the precise instructions which I have received from the French government, with the view of reaching rapidly a practical and easily attainable result. I am persuaded, gentlemen, that we will be wise enough to take as an inspiration that great and generous motto the “*unita d'intento*,” which, at the call of Mazzini, enabled Italy, this great and noble nation, to realize her unity.

We also will be wise, gentlemen, to realize this “*unita d'intento*” which, according to the poetic expression of our distinguished and sympathetic President, Count Einaudi, will enable us to put into practice human solidarity, and we shall see dawn of the long wished for day when the different social classes who labour together in the cultivation of the soil shall unite in garnering the wheat.

Gentlemen, and dear colleagues, will you excuse me? I have been perhaps a little long and the weather is warm.

We, however, who represent the toilers of the soil, do not fear the heat. With the great poet Carducci, we love the rays of the bright sun of Italy, whose rays fertilize and fecundate the heavy labours of the workers of the fields, and whose same beams will also reward our earnest efforts with a rich harvest of blessings of which, later, humanity will be proud.

At the afternoon session, Dr. Mueller, delegate for Germany, spoke as follows:—

“Gentlemen, it is my duty to first declare that I share entirely, as do we all, the sentiments of appreciation towards His Majesty the King of Italy, the Italian government, the Royal Commission, and above all towards our President, sentiments which M. Louis Dop has interpreted in a manner so eloquent and sympathetic.

In my opinion the object of our discussion is to give suggestions to the Commission, which we are about to name. This is my reason for explaining the points of view which will guide me in taking part in the work of the Permanent Committee, with, I may add, the entire approval of my government, which leaves me otherwise quite at liberty to seek, in common with my colleagues, the means necessary and useful to develop our Institute and, in a word, to protect and second the common agrarian interests of all the countries which have adhered to the International Institute.

I believe that the most important work of the Institute will be the organization of a service of information concerning the extent of cultivated land, the crops, the prices of and commerce in the principal agricultural products.

I have no doubt that this service, if well organized, will immediately be of great advantage to the interests of farmers and to the general economy of the whole world. This service being the most important of all those authorized by Article 9 of the Convention, I am of opinion that the greater part of the material and personal forces of the Institute, should from the first, be devoted to its inauguration.



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For the other services, it will be sufficient to collect exact data upon practical and scientific progress throughout the world and to distribute them as widely as possible by publications, either periodical or as often as it is thought necessary.

As regards the work of the Institute in general, I believe that it will be necessary, to confine ourselves strictly to the provisions of Article 9 above mentioned, although this will not prevent us from giving our attention to questions which, while not literally enumerated in that article, are without doubt therein implied.

As for the data which are to be placed by each state at the disposal of the Institute, it is absolutely necessary, in my opinion, that these must be authentic, rapid and punctual, and that consequently there can be only taken into consideration data of which the authenticity is recognized by the state communicating them.

As for the operation of the Institute, I think it is necessary, to utilize the scientific and practical experience and the special methods of work of the different nations, an international principle from which we have already profited in forming the Permanent Committee, and which should also be of great use in the composition of the different bureaux.

As for the organization of the bureaux, with the view of simplifying our work as much as possible, I believe that it will suffice for the present, to form three divisions, namely:—

(1) Division of the Secretary General, which will take charge of the general administration, the library, the publications, accounts, and of the supervision of the staff.

(2) Division for the securing of information regarding the principal agricultural products and plant diseases.

(3) Division dealing with information regarding economic and social institutions and questions concerning manual labour.

Lastly, with the view of ensuring the effective co-operation of persons of outstanding ability, I believe that it will be useful to put the three chiefs of divisions under the direct control of the Permanent Committee.'

After Chevalier de Pozzi, delegate for Austria, had expressed his sympathy with the views of Dr. Mueller, M. E. Miklos de Miklosvar, delegate for Hungary made, in his turn, the following declaration:—

'Our International Institute of Agriculture, divested of all political considerations, will serve, I am sure, as a bond of union between the peoples, rendering their relations more cordial, and assuring an extension of the ideas of co-operation and mutuality, the application of which to agriculture appears to be the characteristic of modern times and the principal cause of the greater part of the progress which has been made.

The role of the International Institute may be in the future very considerable, but it is necessary that our activity be limited at the commencement, that we walk slowly but surely, and that we hold strictly to the provisions of Article 9 of the Convention. 'He who goes slowly goes safely,' says the Italian proverb. Let us never lose sight of the fact that we must always remain on a solid foundation and that we can only work with the aid of correct and controllable data furnished by the different governments.

We shall have nothing to fear if we travel a path solid and well defined.

Our business will go without difficulty if God is our help and science our guide.

As regards the internal organization of our Institute and its operation, I am convinced by the forces of facts, as also by my personal knowledge of different countries that we can for a beginning, concentrate our work in two great divisions, namely:—

(1) Agrarian information.

(2) Agrarian questions and institutions and an economic social nature.'



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Sir Thomas Elliott, delegate for Great Britain and Ireland, declared that he fully shared the ideas set forth by his colleagues of Germany, Austria and Hungary, and believed also that the functions of the Institute should above all be devoted to the securing of statistics, but that it was very necessary to distinguish between statistics of a static order and statistics of a dynamic order.

He hoped that the Institute would confine itself to these last, that is to say to living statistics. This would be the surest way of observing in its true spirit the Convention of 1905.

The President thanked the delegates for the kind words which had been pronounced in reference to him, and with a view to answering in a complete fashion the remarks which had been made, asked M. Louis Dop, to indicate point by point the differences which existed between the project of the Royal Italian Commission and the ideas of his government.

M. Louis Dop, delegate from France, remarked, firstly, that the Italian project reproduced the articles of the Convention of 1905, and pointed out that the reproduction of these articles was useless.

Upon the declaration of the President that these articles were not an exact reproduction of the articles of the Convention of 1905, M. Louis Dop asked in the most formal manner that the articles of the Italian project might be considered in such a way as to preserve in future discussions the full force of the article of the final Act of 1905. He expressly requested that this reservation should be inserted in the minutes.

The President stated that in order to conform to article 5 of the Convention quoted, it would be necessary to prepare a project of organization and operation for the Institute.

Article 8 of the Convention stated that the Committee makes its own rules of order. The Royal Commission believed that for the rules of order of the Permanent Committee it was best to hold closely to the procedure fixed by the Convention. This, however, does not imply a renewal of the discussion of these principles. On the contrary their reproduction should be considered as a confirmation of their full strength. He was quite satisfied that he would be given an opportunity of explaining to the Assembly that the intention of the Royal Commission was not and should not be considered a modification in any way of the letter or the spirit of the Convention.

M. Louis Dop called the attention of the Permanent Committee to another point marking the difference between the two projects. He thought that everything concerning statistics should be centralized in a single bureau, as well as all information regarding agricultural products and rural labour. In fact, following Article 9 of the Convention, the task of the Institute, as far as concerns labour, should be limited to the statistics of agricultural wages, whereas in the Italian project the data relative to emigration, permanent and periodical, are discussed.

The President explained the principles followed by the Royal Commission, which had to recognize that it would have been very difficult and almost impossible to determine exactly the wages of rural labour, because of the numerous and different elements employed to establish the measure and the real value of these wages which are often paid in kind and which vary in each country and in each season, both in regard to different agricultural operations and to what the English call the 'standard of life.' So much the better for the work of the Institute. If the Permanent Committee can find the means of collecting and presenting exact and precise data. The Royal Commission had recourse to data relative to emigration in order to determine to what extent it was affected by the law of supply and demand.

M. Louis Dop, delegate from France, stated that very precise data as to the rates of agricultural wages are furnished to the Department of Agriculture of the Republic. On the other hand, one can only give what one has. He insisted upon the convenience of concentrating in the Bureau of Statistics data relative to manual labour.



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As far as concerns the organization of the services, differing from his colleagues of Germany and Austria, he was of opinion that it would be necessary to establish a special bureau for diseases of plants.

Many questions of a statistical kind, but above all of a technical and scientific nature, applied to the argument that it is not convenient to group data relative to the diseases of plants in the Bureau of General Statistics.

M. Konow, delegate from Denmark, stated that his government had instituted a special bureau charged with furnishing information to the International Institute of Agriculture and with the distribution of information, which, in its turn, the Institute would undertake to furnish. He thought that other countries should form similar bureaux, to serve the Institute, which, only by such means would be able to fulfil its functions in a complete and effective manner.

His Excellency Boghos Pacha Nubar, delegate from Egypt, stated that in the preceding sitting the committee had decided to only open a general discussion upon the project of the rules and organization of the Institute. They should, therefore, confine themselves to declarations of a general order, and if no one had anything more to say, it only remained to nominate the commission mentioned in the proposition of the delegate from the Netherlands.

The President read again the text of this proposition and asked the committee if it wished to elect by acclamation the list of members of the proposed Commission, handed to him by Mr. Lovinck.

M. Louis Dop proposed to add to the list the names of the delegates from Spain and Denmark.

The list being put to the vote was approved by acclamation.

It is as follows:—

- (1) His Excellency Boghos Pacha Nubar, delegate from Egypt.
- (2) Sir Edward Buck, K.C., S.I., delegate from India.
- (3) M. O. Bolle, delegate from Belgium.
- (4) M. Louis Dop, delegate from France.
- (5) Sir Thomas Elliott, delegate from Great Britain and Ireland.
- (6) Count E. Faina, delegate from Italy.
- (7) M. Fleva Nicolas, delegate from Roumania.
- (8) M. H. J. Lovinck, delegate from the Netherlands.
- (9) M. E. Miklos de Miklosvar, delegate from Hungary.
- (10) M. le Mueller, delegate from Germany.
- (11) M. Chevalier de Pozzi, delegate from Austria.
- (12) M. J. Gunion Rutherford, delegate from Canada.
- (13) M. Echevarria Auguste, delegate from Spain.
- (14) M. H. H. Konow, delegate from Denmark.

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The President proposed to the Permanent Committee to add three members to the Commission named on the 26th, to wit, His Excellency M. Saenz Pena, delegate from the Argentine; M. le Professeur Vieira Souto, delegate from Brazil and M. G. S. Estava, delegate from Mexico.

The President's proposition was approved.

The President further announced that the Commission above mentioned had nominated a sub-commission consisting of the delegates from France, Germany and Great Britain and Ireland, charged with preparing a general plan of the rules of order of the Permanent Committee. This general plan having been edited, and the Commission having decided to submit it immediately to the Permanent Committee, the President stated that it would be distributed as soon as possible to the members of the Committee at their respective residences in order to allow their examining it and discussing it the next afternoon.

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The President opened the general discussion on the plan of the rules of order for the Permanent Committee as edited by the sub-commission.

His Excellency M. Boghos Pacha Nubar, delegate from Egypt then read the following declaration:—

‘Gentlemen,—The project submitted to us by the sub-commission far exceeds in importance the work which it was asked to perform. It was charged by the Commission with the elaboration of the simple interior rules of order for the Permanent Committee, but our colleagues, without being checked by the surfeit of work imposed upon them, have enlarged the scheme and have at the same time drawn up a project for the organization of the different bureaux and services of the Institute.

In drawing attention to this fact my intention is not at all to criticise, but rather to bestow a well merited eulogy and above all to thank our colleagues of the sub-commission for the immense mass of work which they have performed in so short a time with an activity and devotion which I am sure we ought to recognize.

Each of us has certainly reflected on the questions which present themselves regarding the organization of our Institute and has sought, as I have sought, to find a solution as simple and as free from complication as possible, with a view of making easy in practice the application of rules of procedure in accordance with our Convention of 1905.

For my part, I have reached a conclusion that it would be difficult to separate in this work the interior procedure of the Permanent Committee from the general question of the organization of the Institute. I think that the questions overlap to such a degree that the best solution, the one which would eliminate every complication and every practical difficulty would be to combine them and have only one general constitutional organization. My intention was to propose this to the Committee. I may, therefore, tell you how pleased I am that the sub-commission has arrived at the same conclusion and that better still, it has prepared the complete project which is submitted for your deliberations. I shall permit myself, during the discussion of the articles, to make some observations and perhaps to ask some modifications, but before passing to that discussion, I wish to thank my colleagues of the sub-commission for the spirit which has reigned in the editing of this project and in a very special manner on account of the articles governing vote by state in the commissions. In proposing that this vote be made by state and giving a single vote to each delegate and not the number of votes fixed by the group to which he belongs, our colleagues of the sub-commission, who all three belong to the first group, and have in consequence the right to five votes each in the Permanent Committee, have given the best evidence of the sentiments of equity and liberality which animates them towards the delegates from states belonging to less important groups. This breadth of view, which, I have no doubt is shared by our other colleagues, is to us, a sure guarantee of the spirit and the sentiments which will govern our labours and therefore of the success of our Institute.

M. Miklos de Miklosvar, delegate from Hungary approved the sentiments expressed by his colleague, the delegate from Egypt, regarding the excellent work accomplished by the sub-commission, but thought it his duty to make certain suggestions as to the organization of the Institute, differing in some degree from the principles laid down by the sub-commission and proceeded to read these in detail.

From this time on the Permanent Committee devoted itself entirely to the discussion of the rules of order and the organization which had been prepared by the sub-committee of three.

These comprised (1) the official language; (2) the powers and duties of the President, Vice President and Secretary General; (3) the convening and procedure of the Permanent Committee;



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(4) The organization of the Institute itself, the Committee recommending three divisions:—

(a) That of the General Secretary;

(b) That of statistics and general agricultural information, including plant diseases;

(c) Social and economic institutions, including agricultural co-operation and credit;

(5) The appointment of a sub-commission for the control of each of these three divisions;

(6) The engagement, qualifications, payment, and general control of the staff.

All these subjects were discussed in the greatest possible detail. The position, duties and status of the officers to be engaged, the terms of engagement, salaries, pensions, vacations and matters of a like nature, especially evoked many eloquent orations.

These discussions as a whole, occupied five lengthy sessions, at the end of which but little progress had been made in the task of deciding upon or defining the actual work which the Institute was supposed to perform

On the afternoon of June 6, being of opinion that there had been more or less waste of time, and that the energy and effort which had been expended in discussing these apparently minor details, might better have been devoted to the consideration of the actual work of the Institute, in a larger sense, I felt it my duty to address the committee as follows:—

Mr. President, as the representative of Canada, I desire, before the close of this gathering, to have the opportunity of making a few brief remarks with reference to certain phases of the work connected with the establishment of the International Institute of Agriculture, some of which have been dealt with, while others have been ignored, in the discussions of the committee in which hitherto I have taken little part.

In the first place, I desire to express, on behalf of the Government and the people of Canada, our appreciation of the noble and magnificent generosity shown by the King of Italy and his Government, in the manner in which the International Institute of Agriculture has been initiated and endowed.

The original conception of Mr. Lubin, noble as it was, would in all probability have remained, at least for many years, only a beautiful dream, but for the appreciation and support bestowed upon it by our friends of Italy, promptly seconded as they were by the other nations, who showed themselves quick to realize the gigantic possibilities of the idea.

As a rule, great bodies move slowly, and while true of corporations and even of nations, this old adage has scarcely been verified in the present instance, involving as it does the united action of practically the whole civilized world. It is but a little more than three short years since the proposal was first made public, and we now find ourselves gathered from all quarters of the globe established in a comfortable, handsome and permanent home, well advanced in the work of organizing what to the minds of thinking men is undoubtedly the greatest and most benevolent international scheme which has ever been conceived and the wide possibilities of which it is utterly impossible to overestimate. When one considers the many difficulties attendant upon the assimilation of the many widely different ideas which converge in an assembly of this kind, the progress which has been made is undoubtedly most gratifying, and reflects the greatest possible credit upon the working members of this committee, especially upon those of the sub-committee which worked almost day and night, labouring earnestly to prepare the exhaustive 'reglement' which has been the subject of discussion during the week just passed.

While in view of this earnest and conscientious work and its undoubtedly great results, it may appear somewhat ungrateful to venture into the field of criticism, I may be pardoned, as the delegate of a young, though vigorous and rapidly growing



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agricultural nation, in which the instincts of business are perhaps more fully developed than those of sentiment, if I venture to suggest that the work achieved at this meeting, although unquestionably of great value, has been conducted on somewhat different lines from those which it might reasonably have been expected to follow.

Having travelled a much greater distance than any other delegate here present for the special purpose of securing for the Government of Canada definite and reliable information as to the exact nature and scope of the work for which this Institute has been created and which it is expected to perform, I am naturally somewhat disappointed at being compelled to return to my country possessed of but very little more practical information than I had before leaving home.

We have, as I have already stated, magnificent quarters and we have now as a result of our labours during the past fortnight a scheme fairly complete for the conduct of the office work of the Institute, but as to what that work is really to be, and as to how each of the adhering governments has to arrange for the performance of its share of that work, we have even now no practical or definite knowledge.

Speaking as a business man, and as one who has had a considerable experience in public affairs and in the organization of official work, I cannot refrain from expressing the opinion that it would have been better to devote more time to the consideration of the actual work of the Institute than to the many little details of its 'fonctionnement' and the classification and management of its officials, matters, which from my point of view, might with reasonable safety have been left largely in the hands of the Secretary General and the other principal officers of the staff, who, if the Institute is to succeed at all, must be men of business capability, progressive ideas and above all sound common sense.

It may be said that this suggestion might have been made at an earlier stage of the proceedings, when action upon it might possibly have been taken. To this criticism I can only reply that, looking as I did upon the discussion and adoption of the 'reglement' as very largely a matter of form which would be generally accepted without much discussion, I was under the impression that ample time would be afforded for the consideration of the real work of the Institute, in accordance with the suggestion made by the honourable the delegate from the Netherlands, at our first meeting.

I feel the more keenly in regard to this matter because my chief, the Honourable Sydney Fisher, Minister of Agriculture for Canada, keeping in view the possibilities of this Institute, in the organization and development of which he has from its inception taken a keen interest, is contemplating a complete revision of the work of securing agricultural statistics in Canada. The reorganization of this service, which, while under existing condition entirely satisfactory from a national point of view, might perhaps be improved for international purposes, has been held in abeyance in the hope of this meeting deciding upon a definite plan, involving such a simplification and assimilation of the agricultural statistics of each adhering country, as would secure at least reasonable uniformity in the manner and method of their periodical presentation to this Institute.

Another point on which I think it is essential that a clear understanding should be reached, is as to the exact relations between the members of the Permanent Committee as individuals, on the one hand, and the Institute and its officers on the other.

While the Permanent Committee, acting as a body, must necessarily have full and complete control over the Institute, its conduct and its affairs, it should, I think, be laid down as a sound business principle that an individual member, as such, shall not interfere in any way with the work of the Institute or its employees. The proper accomplishment of the work for which the Institute has been created depends entirely on the existence of an absolute security that the information of which it is to become possessed will reach the public only at such times and through such channels as may be decided upon by the Institute itself. This being the case it is of the utmost importance that any outside interference with its officials should be absolutely impossible,



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and that the discipline maintained among the staff should be of the most rigid character.

I do not know, Mr. President, whether or not I shall again attend a meeting of the Permanent Committee; I trust that at the November meeting, it will be possible for my minister himself to take part in your deliberations. Meanwhile, I desire to thank you, on behalf of myself and my colleagues, for the uniform kindness and courtesy with which we have been treated during our stay in Rome.

I would add that we who live across the Atlantic will continue to watch with interest and appreciation the progress of the great work, to which the King and Government of Italy have given such a noble impetus.

Baron Bildt, delegate from Sweden, seconded by M. Louis Dop, delegate from France, moved the following resolution:—

‘With the view of assuring, from the foundation of the Institute, the progress of the different technical services, the Committee decides to entrust to the editing committee the task of establishing a definite and precise programme of the different statistical informations which will be asked from the various states and of presenting this programme, with the shortest possible delay to the Executive, who will be charged with forwarding it immediately to the delegates of the different states.’

His Excellency Boghos Pacha Nubar, delegate from Egypt, was of opinion that the task entailed in this proposition might with advantage be entrusted to the Commission charged with the definite editing of the articles and of the project relative to the pensioning and insurance of officials, and suggested the following modification:—

‘With the view of securing a definite edition of the rules of order of the Institute, as also the two projects relative to the pensioning and insurance of officials and the Budget, the Permanent Committee names a special commission of eight members, whose powers will commence from the actual adjournment of the Permanent Committee and will expire at the date of its first meeting in the month of November next.’

This modification having been accepted by Baron Bildt and M. Louis Dop, was put to the vote and approved.

The following gentlemen were elected by ballot as members of the commission:—

The delegates from Germany, Argentina, Austria, Belgium, United States, France, India and Italy.

After the discussion of some minor matters, it was decided on the suggestion of the President, that the General Assembly should be convoked between the 20th and 30th of November next, and that the meeting of the Permanent Committee should precede such convocation by ten days.

M. C. e Vasconcellos, delegate from Portugal and Dean of the diplomats present, asked leave to give expression to his sincere sympathy and regard for the President, who had directed the sittings of the Committee so wisely and equitably, for his colleagues for the spirit of conciliation which they had shown in the course of the debates and lastly for the Secretary General and his co-workers who have contributed in so distinguished a manner to the rapid progress of the work. He had no doubt that these sentiments would be shared by all the members of the Permanent Committee.

The President then spoke as follows:—

Gentlemen and dear Colleagues, I thank you all from my heart for the good will which you have been so willing to show to me and I particularly wish to thank His Excellency the delegate from Portugal for the very kind words which he has uttered regarding me. If, at times, I have not been able to perform with satisfaction the duties which you have done me the honour of entrusting to me, I beg that you will not attribute it to lack of good will.

‘I am greatly pleased that the International Institute of Agriculture has given me the opportunity of renewing old acquaintances and of acquiring new as also of



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appreciating the eminent qualities of which the gentleman representing the various adhering states have given proof.

‘In the name of my government and of the public opinion of my country, I pray you gentlemen to convey to the various countries which you represent our sincere regard.

‘Thanks to your governments, it has been possible to give to the generous idea initiated by His Majesty the King, my august sovereign, a concrete form, and to place it upon a practical basis. Thanks to you, this great work of peace and solidarity has overcome its first difficulties which are always the greatest. It is now in progress and nothing will stop it, if you are willing, as I am sure you are, to aid it as you have aided it in the initial steps, with your experience and marked ability.

‘This being the case, I do not say ‘Adieu’ gentlemen and dear colleagues, but ‘Au revoir’ and that soon.’

The Permanent Committee then adjourned.

The Commission of eight which was composed of Senator Count Faïna, delegate for Italy; Dr. Mueller, delegate for Germany; M. Louis Dop, delegate for France; Sir Ed. Buck, delegate for India; Mr. David Lubin, delegate for the United States; M. O. Bolle, delegate for Belgium; M. Chevalier de Pozzi, delegate for Austria; M. R. Saenz Pena, delegate for the Argentine Republic; met for the first time on June 11, the only member absent being Sir Edward Buck, who had found it necessary to leave Rome.

At this meeting the principal subject discussed was that of the best mode of soliciting from the governments of the various adhering states statistical information desired for the use of the Institute.

Propositions embodying definite interrogatory schedules were presented by Dr. Mueller and M. Bolle, but after some discussion both were rejected on the representations of Count Faïna to the effect that the Italian Government had already sent out to the adhering governments, a series of questions, the answers to which in detail would serve the required object.

It was then decided to entrust to M. Louis Dop and M. Bolle the final editing and harmonizing of the articles of procedure approved by the Permanent Committee; to Dr. Mueller the working out of a system of pensions for officers; to Count Faïna the study of systems of insurance, while to Count Faïna and Dr. Mueller were also entrusted the preparation of the Budget; reports on all these subjects to be submitted to the Commission in the month of October..

The sub-commission next met on November 4, all the members being present with the exception of the delegate from the Argentine.

At the sessions, which lasted until November 9, there were also present from time to time, M. H. H. Konow, delegate from Denmark, Sir Thomas Elliott, delegate from Great Britain and Ireland, Dr. A. Fjelstad, delegate from Norway, and myself as delegate from Canada.

The work of the Commission at this time consisted entirely of a careful review of the rules of order and of the general plan of the work of the Institute, the latter comprising the various Permanent Commissions to be entrusted with the different branches of the work, the allotment of the staff and the Budget.

As all these matters were again fully discussed in the Permanent Committee and embodied in the report made by that body to the General Assembly, of which you yourself were a member, it is scarcely necessary to further allude to them at present.

The Permanent Committee was formally convened on November 16, delegates of thirty-one countries being present.

The President announced the addition to the membership of the Institute of the Republic of San Marino and the Italian colonies of Erythrea and Italian Somaliland.

It was agreed that as a special privilege the delegates from the United States, China and Japan should be assisted by their private secretaries.



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The orders of the day having now been reached, the President announced that the first duty of the Commission was the nomination of the Vice-President. On motion of M. Estava, delegate from Mexico, seconded by M. Miklos de Miklosvar, delegate from Hungary, action on this head was postponed until after the session of the General Assembly, when the regulations of the Permanent Committee should be approved.

M. Louis Dop then read on behalf of M. Lubin, delegate from the United States, a communication giving the views of the country on the organization of the Institute.

The consideration of the rules of order, as edited by the Commission of eight, was then begun by another lengthy discussion on the question of the official language to be used in the debates of the Permanent Committee. Mr. Taverner, delegate from Australia, being the principal opponent of the adoption of the French language. The clause containing this provision was, however, formally passed with a slight verbal amendment which appeared to satisfy Mr. Taverner.

The committee then devoted itself to a rapid but careful consideration of the rules of order of the Permanent Committee and the organization of the Institute, its various permanent sub-commissions and its staff.

These matters having been disposed of, subject to the approval of the general Assembly, the question of the Budget came up for discussion on November 18.

On this subject Dr. Meuller, to whom in conjunction with the President, the task of preparing the Budget had been entrusted contributed a most comprehensive and exhaustive statement. In this statement he entered fully into a consideration of the Institute from various points of view. In fact so interesting and illuminating was his address that I have deemed it advisable to translate and present it here.

The allusions which he from time to time makes to the budget, while perhaps by themselves somewhat obscure, will be easily understood on referring to that document itself, which will, I presume, be embodied together with the rules of order and plan of organization in your own report of the proceedings of the General Assembly.

He spoke as follows:—

‘Gentlemen,—The Commission of eight which you have charged with the preparation of the different propositions to be submitted for your consideration, has followed the method of modern economy in the division of work.

To our President and to myself the Commission has entrusted the financial part of our programme.

It is the same method of division of work which now leads me to explain to you, as reporter, this part of the programme, and to present to you the ideas and motives which have guided us. It is my duty to premise that while I have been charged with reporting this part of the programme, I have not performed the greatest part of the work. It is to our venerable President, Count Faina, that we owe the propositions which I shall lay before you; they are his ideas and his propositions, the result of his unceasing labour during the past summer, which have furnished the basis of the deliberations and decisions of the Commission in all that concerns this part of the programme. It is because of his position as President that he abstains from addressing you personally upon these propositions, which are chiefly the result of his own work.

I have told you, gentlemen, that I will report upon the financial part, that is to say, upon those articles of our procedure, which, in their definite consequences, find expression in the figures of our budget, or rather which furnish the most essential elements of our budget.

These articles refer to (1) The organic plan affecting the principle of the remuneration of our officers and the establishment of regulations governing their situation during the period of their service; (2) The system of retiring allowances, that is to say, the establishment of the guarantees which we will be disposed to accord to our officers in case of sickness, old age, death or dismissal.



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Always gentlemen, in discussing these articles, we should not consider exclusively the consequences of a financial nature which they will have upon our budget, but also and perhaps in the first place, their effect upon the future of our Institute, that is to say upon the quality of our productive work, and the services which, on the foundation of our Institute, have been promised, not only to the agrarian world, but to the world as a whole.

You will find on page two of the minutes under the title 'Organic plan,' line one, the following phrase:—'The Commission adopts the following proposition; the Commission, after exchanging different points of view concerning the remuneration of officers, and of the inferior employees of the Institute, is in favour of drawing up a normal table of salaries for the different employees. This table will form the financial statute of the persons employed in the different services of the Institute and will establish upon a fixed and regular basis the pecuniary situation of the staff.'

As the different points of view have not been mentioned, I beg to draw your attention to several general observations. The organization to be established for our Institute is based—

- (1) On its financial capacity;
- (2) On its juridical nature;
- (3) On the definition of its material character;

I say nothing of the good-will of the adhering governments, who ought to furnish us the material essential for our work, as to this I have no doubt.

I dwell a moment on our financial capacity; as you know gentlemen, this is actually very limited, but fortunately, there already exists to a certain degree, the possibility of its further development. After the two first years of existence the unit of subscription can be raised to a maximum of 2,500 francs.

We were obliged to keep in view, in formulating our propositions these two circumstances, and naturally we kept within the limits as actually drawn, but we have always borne in mind the fact that at a given moment there would be a possibility of improving the financial conditions of the Institute.

Now as to the juridical nature of our Institute, there are two points to consider:—

(a) The circumstance that our Institute does not possess in itself the absolute guarantee of unlimited duration although we all have full and entire confidence in its permanency. It follows that we cannot to-day assume any liability which will imply a supposition of the permanent existence of the Institute. On the contrary we must admit the hypothesis that at any time the Institute may cease to exist, and that, in that event, we should find ourselves entirely free from any kind of liability. In practice this is important, as in choosing a system of remuneration and in fixing the nature of the engagement of our officers, we ought to reserve the power of dismissing them at any time, and pay them accordingly.

(b) The other point has reference to the international nature of the Institute which demands a composition of the staff equally international, as is provided by article 26 of our procedure. We must then reckon with the fact that we will have to engage officers coming from different countries and give them a comfortable existence in a foreign country, and although in this case it is the beautiful country of Italy, in which we admire so many sublime things, it is none the less for them a foreign residence, subject to some privations as well as exceptional expenses. Our officers then should find certain compensation in their remuneration.

(c) I have mentioned a third cardinal point to wit, the definition of the character of our Institute; if you were to ask me for a positive definition of our Institute, I would find it difficult to answer you.

Permit me then to tell you now that which is not in the nature of the Institute.

Has the Institute a diplomatic character? No, gentlemen; although we have the honour and the pleasure of counting among ourselves a great number of eminent diplomats and although in the General Assembly there will be perhaps diplomatic re-



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representatives of the governments who will lead their delegations, the true character of our Institute will not change. Certainly, gentlemen, the Institute in view of its international composition, will always be in touch with diplomacy, and I would even say that the Institute by its preparatory work, will render services to diplomacy, in dealing with international matters, but the Institute can never assume a diplomatic character, without risking the failure of realizing the objects which it has in view.

Has our Institute the character of an administrative governmental institution? No, gentlemen; neither would that suit the nature of our task. Certainly we should enter and remain intimately in touch with all governmental administrations. They will be, if I may use the expression, our nurses, from whom we will draw our financial means, as well as the material which we require for our work. Meanwhile our organization and our method of work differ entirely from governmental administrative systems. A bureaucratic routine would mean the death of our Institute.

Has our Institute a purely scientific character? No, gentlemen; it is not ours to seek the solution of scientific problems, but we will be able to serve science and to assist it by bringing to it very useful scientific material. We will be closely allied to science; I would even say our methods of work will resemble scientific methods more than any other, but our Institute will not, for all that, be a scientific Institute.

Has our Institute the character of a statistical bureau? Does it resemble a government statistical office? No, gentlemen; it will certainly have much affinity with such an office, but its character will be very different. Certainly, gentlemen, the statistical offices will be our principal co-workers, as on the other hand, our Institute by elaboration of material collected in all parts of the world will be able to materially aid statistical bureaux. But there will nevertheless exist a great difference. This difference arises, from the fact that our Institute is not called upon to deal with dead but with living statistics. I do not say that the existing statistical bureaux do not also deal with living statistics; they do, and it is precisely that part of their work by which our Institute will profit. But these living statistics are not the principal object of these bureaux. Their principal object consists, if I may say so, in the gathering and elaboration of data from a historical and retrospective point of view, which are doubtless of use in their application to existing conditions, but which are no longer existing at the time of their application. Our Institute, on the contrary, should work in such a manner as to furnish data from day to day, and consequently answer to existing and daily demands.

There, gentlemen, is a list of negations; one might reasonably ask, what then is the positive character of the Institute? In answering this question I would use a metaphor. I believe we might compare our Institute to an industry which sets out to create a principal product, but which in the course of manufacture, creates at the same time a number of secondary products. In the Institute the first matter would be the assembling of information coming to us from governments and from other sources throughout the entire world. The principal product which we desire to create is a certain and wide basis for the formation of real prices of agricultural products. The secondary products are more varied: they consist of the services which we can render to agricultural and commercial statistics in general, to science, to government administration and to diplomacy.

The Institute will then have the character of an industrial scientific establishment of such a sort that its organization, its methods of work, its staff and the qualifications of its employees will correspond with its special character.

I have had to extend my remarks somewhat to arrive at a very simple conclusion, namely, that we should have a staff having qualifications entirely special, of extensive culture and worthy of the greatest confidence. Needless to say, I speak specially of the directing officers, from whom we will require exceptional qualifications, but, inasmuch as on the one hand we are obliged to engage such officers, we wish on the



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other hand, as I have already had occasion to explain, to reserve to ourselves every possible liberty of action.

It must be added that this reservation is the much more necessary because of the novelty of the enterprise and our lack of experience which must eventually confine us to the nomination of persons whom we will be able to dismiss at any time.

It follows that it will be only at a very high rate of remuneration that we will be able to find superior officers entirely suited to our needs.

These are, gentlemen, the points of view which have guided us in establishing the normal table of appointments for all the officers, particularly for those who will hold controlling positions and those to whom the international principle is particularly applicable.

For those employees to whom these considerations do not apply, we have been able to conform approximately to the scale of payment in force in Italy, bearing in mind at the same time, that we must also demand from this portion of the staff an effective service while reserving, even towards them, every liberty of action. This is why this class of employees is equally well remunerated.

The remainder of Dr. Mueller's address which dealt in detail with the proposed salaries, has since lost some of its value because of changes in the figures made by the Permanent Committee after the meeting of the General Assembly.

All the discussion at this and the following meeting of the Permanent Committee was confined almost entirely to matters of detail.

The special reports presented by M. Louis Dop and Dr. Mueller to the General Assembly of which you were at the time the presiding officer, contain in all necessary amplitude the results of the labours of the Permanent Committee.

These labours, so far as I was concerned, came to a close on the evening of November 18, when the two gentlemen above named were appointed as official reporters to the General Assembly.

Hon. Arthur Boyer, who, at this time, succeeded me as Canadian delegate to the Permanent Committee has doubtless informed you fully regarding the work subsequently performed by that body.

I cannot close this report without again expressing my deep sense of obligation to Sir Thomas Elliott, the official delegate of Great Britain and Ireland. To his untiring efforts, marked at all times as they were, by consideration for others, suavity and sound common sense, the Institute, in my opinion, owes almost entirely the comparative success which it has so far achieved.

I am satisfied that without his influence the task of harmonizing the views of the delegates representing the greater European powers would have been almost, if not altogether, impossible.

He was well sustained by another very able and experienced man, Sir Edward Buck, an old Indian administrator, who was for many years Secretary to the Council of India, and who has given practically his whole life to the task of organizing the agriculture of that country.

Much credit is also due to Mr. T. P. Gill, Secretary of the Department of Agriculture and Technical Instruction in Ireland, who took a deep interest in the work of the Institute and contributed largely to the measure of success achieved.

Among the delegates from other countries were many able and even brilliant men, among whom may be especially mentioned Dr. Mueller, M. Louis Dop, M. Miklos de Miklosvar, and His Excellency Boghos Pacha Nubar, the representatives respectively of Germany, France, Hungary and Egypt.

As the first official delegate from Canada to the International Institute of Agriculture, I desire to place on record my opinion that if the destinies of that Institute are controlled, as they ought to be, by the business nations, it is certain to have a marked influence upon the future peace and prosperity of the world.



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It therefore goes without saying that the commercial nations of the world, especially those which, like Canada, are large producers of agricultural staples, should take seriously to heart their share in its development, and should employ in connection with it, the best and brainiest men available for the work.

I have the honour to be, sir,

Your obedient servant,

J. G. RUTHERFORD,  
*Veterinary Director General and  
Live Stock Commissioner.*

To the Honourable,  
The Minister of Agriculture,  
Ottawa, Ont.



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## APPENDIX No. 18.

## INTERNATIONAL INSTITUTE OF AGRICULTURE.

*(The Honourable Arthur Boyer.)*

PALACE OF THE INSTITUTE,

ROME, March 31, 1909.

SIR,—As Canadian delegate to the International Agricultural Institute at Rome, I beg to submit herewith the report of my mission for the fiscal year 1908-9.

Allow me to call your attention to the fact that the organization of the Institute was completed only in January-February last, by the nomination of its chiefs of division and of section, and that the preparation of a programme for an International Institute composed of forty-eight nations is no easy work, necessitating as it does a great deal of time, thought and patience. The fact of having the Institute organized is an accomplishment worthy of record, though there might be no other results to point at, and it is hoped that this organization will give us, the first year, all the results that can be expected.

The 28th of November, 1908, at ten o'clock in the morning, the doors of the splendid palace built by His Majesty the King of Italy, in the magnificent park of the historic Villa Borghese, were thrown open for the first meeting of the General Assembly of the International Agricultural Institute.

At the annual meeting of 1908, thirty-five of the forty nations which had given their adhesion to the Convention of June 7, 1905, were represented by seventy-one delegates, under the presidency of His Excellency the French Ambassador, Dean of the Diplomatic corps, in the absence of His Excellency M. Tittoni, the Italian Minister of Foreign Affairs.

The session being opened, the president proposes to proceed with the election of two vice-presidents under article IV of the Convention of June 7, 1905.

His Excellency, the Earl of Monts, German Ambassador and Chief of the German delegation, says that the vice-presidents should be selected among technical men, and as there are in the assembly a minister of agriculture and a secretary of state, meaning His Excellency M. Fisher, Minister of Agriculture for Canada, and His Excellency M. Yermoloff, Secretary of State for Russia, the position should be offered to them; he proposes therefore that the Hon. Mr. Fisher be appointed first vice-president and the Hon. M. Yermoloff, second vice-president. This motion, seconded by His Excellency M. Griscom, United States Ambassador, and chief of the American delegation, was unanimously adopted by the meeting, and the president proclaimed Their Excellencies M.M. Fisher and Yermoloff vice-presidents.

M.M. Fisher and Yermoloff gave thanks to the meeting in the names of their respective governments and in their own names. The choice of the secretary was then proceeded with, under article 8 of the Convention of 1905, and Mr. Koeh, Minister Plenipotentiary for H.M. the King of Italy, was requested to fill the duties of secretary to the assembly and chief of the secretariate.

The president proposes that the assembly adopts for its administration the regulations of the 1905 conference with the necessary modifications, and the examination of the statutes of the Institute, prepared by the permanent committee, is then taken up.

Mr. Louis Dop, French delegate and reporter of the permanent committee, reads his report on the organization and the mode of operation of the Institute. This



report, which covers forty-five articles, deals with all points necessary for the administration and operation of the Institute. The first clause reads as follows: 'The discussions will be carried and the acts of the Institute will be drafted in the French language.'

The first division deals with finances, correspondence, library, bibliography, archives, staff, palace of the Institute, and all questions relating to the work of the Institute.

II. Agricultural information: markets, fairs, &c. Collection, compilation and publication of practical information on agriculture, animal and vegetal products, trade in agricultural products; interpretation and comparison of various statistics; inquiries and monographies.

The third division deals with salaries of rural labour; statistics and information concerning the organization of co-operation, insurance and agricultural credit.

The total receipts for the year 1909 are estimated at 849,500 francs, made up as follows: 406,594.65 francs, excess of receipts over expenses for the year 1908. This rather large surplus is due to the fact that the Institute was not organized during the last fiscal year and to the inclusion, in the receipts, of the sum of 441,905.35 francs made up of the contributions of the various countries for the year 1909, which gives a total of 849,500 francs. The expenses, estimated at 749,500 francs, are as follows: -

Leaving a surplus of 100,000 francs, which is set apart as a reserve fund.

The subvention due to the magnificence of H.M. the King of Italy, founder of the Institute, goes to defray the cost of building and furnishing of the palace of the Institute for the current year.



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One word as to the states adhering to the institutes: These states are divided into five classes, and the number of votes, and the amount of contribution varies with each class.

The first class includes fourteen countries, each of which has five votes and pays 24,000 francs.

The second class includes five countries, each of which has four votes and pays 12,000 francs.

The third class includes two countries, each of which has three votes and pays 6,000 francs.

The fourth class includes eleven countries, each of which has two votes and pays 3,000 francs.

The fifth class includes ten countries, each of which has one vote and pays 1,500 francs.

This statement shows clearly the difference made between large, medium and small countries. This mode of assessment for contributions to be paid by the different countries is in my opinion very fair, and the amounts are proportionate to the influence which each country exercises in the Institute.

The meeting of November 29, 1908, under the presidency of His Excellency Mr. Tittoni, the Italian Minister of Foreign Affairs, was most interesting.

The magnificent speech of welcome which he gave, and particularly the words: 'It is with joy and pride that, in the name of His Majesty the King of Italy, I sanction your work in this Eternal City, the cradle of civilization,' were warmly cheered.

In his answer, His Excellency Mr. Fisher, first vice-president, requested His Excellency to convey the thanks of the meeting to His Majesty the King, to whom we owe the establishment, in the Eternal City, of this Institute, which has met such a hearty welcome in the universe. 'Through the centuries Rome has been the centre of great movements. To-day she sees within her walls a meeting of all nations working in harmony for the interests of agriculture, first necessity of life and foster-mother of the people, and I am convinced that I rightly interpret the feelings of these delegates of all countries by assuring through you His Majesty the King that our most heartfelt desire is to place on a permanent basis the great work which is the object of our efforts.'

After a short discussion it was decided to hold the next meeting of the general assembly in the month of November, 1909.

At the last meetings of November 30 and December, 1908, the regulations of the permanent committee were, after discussion, submitted to a sub-commission, to be slightly modified, after which they were unanimously adopted by the general assembly. His Excellency Mr. Fisher having declared the programme exhausted, the general assembly had completed its work.

Dr. J. G. Rutherford, Veterinary Director General for Canada, who heretofore had been the Canadian delegate to the permanent committee, and who had performed his duties with his usual ability, had to accompany you to London where his presence was required, and I received instructions from you to take his place.

It might be well to give here some explanations regarding the constitution and the work of the institute. The nations which so far have given their adhesion number forty-eight. The organization of the Institute is as follows: A permanent committee of forty-eight members, which meets at least once a month and oftener if business requires. A special committee composed of five members: president, vice-president, and president of the first, second and third division. This special committee, which is called by the president, sits permanently. It prepares the work and deals with all questions in which the Institute is interested. However, its decisions and suggestions are subject to the approbation of the permanent committee.



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As soon as the general assembly was adjourned, the permanent committee resumed its sessions, and the Hon. Senator Count Faina, Italian delegate, was elected president, and M. Louis Dop, French delegate, vice-president.

The number of members in each of the three divisions has been increased from fifteen to twenty-two, as provided by the Norrero motion, so that the nations of the third, fourth and fifth class might be better represented.

The first division (finances, &c.) elected as president, E. de Miklos, Hungarian delegate; M. A. Echeverria, Spanish delegate, was elected vice-president, and M. G. Zabiello, Russian delegate, reporter.

The second division (statistics, &c.) elected Dr. T. Mueller, German delegate, as president; M. J. B. Pioda, Swiss delegate, vice-president, and M. O. Bolle, Belgian delegate, reporter.

The third division (rural labour, co-operation, &c.) elected M. A. Boyer, Canadian delegate, as president; G. A. Esteva, Mexican delegate, vice-president, and the Chevalier Pozzi, Austrian delegate, reporter.

Allow me to call your attention to the fact that the Canadian delegate was selected to preside over the third division. Most of the presidents, for the Institute as well as for the various divisions, were recruited among the nations of the first class: presidency and vice-presidency of the Institute and presidency of the first and second divisions. If Canada was given the presidency of the third division, although she ranks only with the nations of the second class in the Institute, we owe it to Sir Thomas Elliott, delegate to the general assembly and permanent Secretary for Agriculture in England; and our thanks are due to him for the unanimous election of the Canadian delegate to a high post in the Institute.

Before dispersing for Christmas and New Year's vacations, the special committee requested the president to send all nations adhering to the Institute a circular letter requesting them to designate the men they believed the most competent to fill the high posts of technical chief and sub-chief of the three bureaux among which the work of the Institute is divided, for the Institute being international, article 46 of the regulations says 'that the composition of the staff of the Institute must be international.' This article caused us to spend many ugly hours, and many a time it came near breaking the harmony which had heretofore reigned in the discussions and decisions of the permanent and special committees.

The special committee met again on January 22, and spent several days in considering applications for the position of general secretary, which were eight in number. Out of deference to the president, the committee favoured the nomination of Chevalier E. Koch, of Italy, Minister Plenipotentiary of His Majesty the King of Italy, and who had filled this position since the foundation of the Institute, having been detached from the Ministry of Foreign Affairs for that purpose. This choice of the special committee was ratified by the permanent committee, as also the choice of the following persons for the posts of chiefs of divisions and of sections: —

Dr. Charles C. Clark, from the United States of America, Chief of the United States Bureau of Agricultural Statistics, who resigned this position for that of the chief of the second division.

M. François Braffort, from Belgium, Director of Agriculture in Belgium, position which he resigned to accept that of chief of the third division.

Le Baron de Podmaniczky, from Hungary, librarian.

M. Guillaume T. Prayer, from Germany, chief of section of the second division.

M. Jules Saulnier, from France, chief of section of the second division (diseases of plants).

Professor Giglioli, from Italy, chief of section of the second division (agricultural information).

M. Wieth Knudson, from Denmark, chief of section of the third division (salaries of rural labour).



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M. Gaetano Donini, from Switzerland, chief of section of the third division (co-operation, insurance and agricultural credit).

M. Ulrico Aillaud, from Italy, assistant to secretary.

This choice of distinguished technical men, of universal repute, and who, although occupying high positions in their respective countries, did not hesitate to put their talents at the service of the Institute, is of good omen.

The appointment of editors, translators, &c., completed the staff of the Institute and enabled it to commence its work.

The organization of the library is of the highest importance for the Institute. Lord Crewe, English Secretary of State for the Colonies, addressed to the various governments of the colonies adhering to the Institute a circular letter calling their attention to the fact that, by the Convention of 1905, they had pledged themselves to supply all publications relating to the various lines of work of the Institute.

Thanks to the zeal of Mr. Keville Doherty, who had received your instructions to collect in the various departments at Ottawa and to send all publications that might be useful to the work of the Institute, I was able to answer that, two months previous to the receipt of this circular the Canadian government had commenced sending its publications, and I may add that the Canadian shelf is by far the most complete in the library. A large number of its publications are greatly admired, and a good share of the praise is bestowed on the *Labour Gazette*.

Allow me, in concluding, to say one more word regarding the object of the Institute, which Dr. Mueller, in his report to the permanent committee, defines as follows: 'It is stated in my report that we have to deal with a new institute, almost unknown until now, for which we must recruit a staff possessing superior and special ability—men who are very scarce, and among whom there is very little choice. This difficulty is due to the rather complicated character of the Institute. Considering the object and the method of work of the Institute, one could more easily define what is not in the nature of the Institute than what is in its nature. Here is a great complication: It is somewhat of a diplomatic Institute, owing to its internal composition and its quality of state institution; it partakes a little more of a bureau of statistics in the sense of an office of government statistics, but it is not such, for it will not gather statistics directly, it will rather avail itself of the information supplied by governmental offices, by compiling and elaborating this information for its own object.

'And, gentlemen, along with industrial work, we desire to accomplish an agricultural object, implied in the name of our Institute. We will endeavour to render important services to agriculture by gathering, compiling and elaborating data of a purely agricultural nature. I consider that the chief object of our work will be the establishment of a universal basis for the prices of agricultural products. Furthermore, all other lines of work of the Institute, foreseen in the programme of the Convention of 1905, concerning rural labour, co-operation, social economic institutions, diseases of plants, &c., aim equally to render practical and useful services to agriculture.'

'Reverting once more to our principal line of work, our aim is to give agriculture a weapon with which it will be in a position to defend itself against the abuses of speculation on the markets of agricultural produce.'

And I may add that the work undertaken is of such magnitude that at times it seems doubtful if man can accomplish it. It must be remembered that forty-eight nations send their publications and their statistics to the Institute, but these publications are in their own languages—Japanese, Chinese, Russian, Hungarian, German, French, English, Spanish, Portuguese, Turkish, Egyptian, Greek, Norwegian, Dutch, Persian, Ethiopian, and all this has to be translated into French. The majority have their own weights and measures, which have to be reduced to the metric system, and all have their currency that must equally be brought to a common standard. There are more than one hundred countries which do not as yet form part of the Institute,



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and it is absolutely necessary to secure their publications and statistics, otherwise the title 'World Statistics' would be incomplete and would have little value. To indicate the salaries of the rural labour for the whole world is no ordinary task. Let us hope that work, perseverance and talent will bring to a happy conclusion the glorious and magnanimous foundation of His Majesty Victor Emmanuel III: The International Agricultural Institute.

The whole respectfully submitted.

ARTHUR BOYER.

*Delegate of Canada.*

To the Honourable  
The Minister of Agriculture.  
Ottawa.



## APPENDIX No. 19.

## STATUTES OF THE INTERNATIONAL AGRICULTURAL INSTITUTE.

CONVENTION OF JUNE 7, 1905.

At a series of meetings held at Rome from May 29 to June 6, 1905, the delegates of the Powers which attended the conference for the creation of an International Institute of Agriculture having drawn up the text of a convention bearing the date June 7, 1905, and that text having been submitted for their approbation to the governments which took part in the said conference, the undersigned, having full powers, formed in good and due form, have, in the name of their respective governments, agreed upon the following:—

*Article 1*

An International Permanent Agricultural Institute is established, with its seat at Rome.

*Article 2*

The International Agricultural Institute is to be an official institution, in which each country adhering shall be represented by delegates of its own selection.

The Institute shall consist of a General Assembly and of a Permanent Committee, of which the constitution and functions are defined in the following Articles.

*Article 3*

The General Assembly of the Institute shall be composed of representatives of the countries adhering. Each State, whatever may be the number of its delegates, shall be entitled in the Assembly to a number of votes which shall be determined according to the group to which it belongs, as indicated in Article 10.

*Article 4*

The General Assembly elects from its body for each session a president and two vice-presidents.

The sessions shall take place at certain dates fixed by the previous General Assembly, according to a programme submitted by the Permanent Committee and adopted by the adhering governments.

*Article 5*

The General Assembly has supreme control over the International Agricultural Institute.

It adopts schemes prepared by the Permanent Committee regarding the organization and internal functions of the Institute. It fixes the total expenditure; it controls and passes the accounts.

It submits to the adhering governments for their approval modifications of any nature which entail an increase of expenditure or an extension of the powers of the Institute. It fixes the date of the sittings. It draws up its own rules of procedure.

Delegates representing two-thirds of the votes of the adhering States must be present at the meetings of the General Assembly in order to give validity to the proceedings.



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*Article 6*

The executive powers of the Institute are entrusted to the Permanent Committee, which under the direction and control of the General Assembly, carries out its resolutions and drafts the motions to be submitted to it.

*Article 7*

The Permanent Committee is composed of members nominated by the respective governments. Each adhering State shall be represented on the Permanent Committee by one member. Nevertheless the representation of one State can be confided to the delegate of another adhering State, provided that the effective number of the members is not less than fifteen.

The conditions for voting in Permanent Committee are similar to those indicated in Article 3 for the General Assembly.

*Article 8*

The Permanent Committee elects from its own members for a period of three years a President and a Vice-President, who are eligible for re-election. It makes its own rules of procedure; it votes the budget of the Institute within the limits of the sums placed at its disposal by the General Assembly; it appoints and discharges its staff officials and employees.

The General Secretary of the Permanent Committee fulfils the duties of Secretary of the Assembly.

*Article 9*

The Institute, limiting its action to international questions, shall—

(a) Collect, elaborate, and publish, with as little delay as possible, statistical, technical, or economic information regarding the cultivation of the soil, its production, whether animal or vegetable, the trade in agricultural products, and the prices obtained on the various markets;

(b) Send to interested parties, in a similarly rapid manner, full information of the nature above mentioned;

(c) Indicate the wages of rural labour;

(d) Notify the new diseases of plants which may appear in any part of the world, indicating the districts affected, the spread of the disease, and, if possible, the efficacious means of resistance;

(e) Consider questions relating to agricultural co-operation, insurance and credit, in all their forms, collecting and publishing information which may be useful in the various countries for the organization of undertakings relating to agricultural co-operation, insurance and credit;

(f) Present, if expedient, to the Governments, for their approval, measures for the protection of the interests common to agriculturists and for the improvement of their conditions, after having previously, taken every means of obtaining the necessary information, *e.g.*, resolutions passed by International Congresses or other congresses relating to agriculture or sciences applied to agriculture, Agricultural Societies, Academies, Learned Societies, &c.

All questions relating to the economic interests, the legislation and administration of any particular State, must be excluded from the sphere of the Institute.

*Article 10*

The States adhering to the Institute shall be classified into five groups, according to the place which each State considers best to select.



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The number of votes at the disposal of each State, and the number of units of subscription, shall be fixed according to the two following scales:—

| Groups of States. | No. of Votes. | Units of Subscription. |
|-------------------|---------------|------------------------|
| I.. .. .          | 5             | 16                     |
| II.. .. .         | 4             | 8                      |
| III.. .. .        | 3             | 4                      |
| IV.. .. .         | 2             | 2                      |
| V.. .. .          | 1             | 1                      |

The minutes of the meetings give concise reports of the proceedings. They record all the propositions made during the course of debate, the results of the voting, and a short summary of the arguments submitted.

Every member has the right to demand the insertion of his speech *in extenso*; but, in that case, he must supply the text in writing to the Secretariat.

In any case the contribution corresponding to each unit of subscription can never exceed the sum of 2,500 francs.

As a temporary measure, the subscription for the first two years shall not exceed the sum of 1,500 francs for each unit.

On the application of the State to which they belong, colonies may be admitted to form part of the Institute on the same conditions as independent countries.

Article 11

The present Convention shall be ratified, and the ratification exchanged as quickly as possible through the agency of the Italian Government.

In witness whereof the respective plenipotentiaries have signed the present Convention and have affixed their seals thereto.

Done at Rome on the seventh day of June, one thousand nine hundred and five, in a single copy, deposited at the Italian Ministry of Foreign Affairs, and duly certified copies of which shall be sent, through the diplomatic channel to the contracting Powers.

- For Great Britain and Ireland—Edwin H. Egerton.
- For Italy—Tittoni.
- For Montenegro—General Mitar Martinovich.
- For Russia—Kroupensky.
- For the Argentine Republic—Bald. M. Fonseca.
- For Roumania—Nicolas Fléva.
- For Servia—M. Milovanovitch.
- For Belgium—L. Verhaeghe de Naeyer.
- For Salvador—J. Gustavo Guerrero.
- For Portugal—M. de Carvalho e Vasconcellos.
- For the United States of Mexico—G. A. Esteva.
- For Luxembourg—L. Verhaeghe de Naeyer.
- For the Swiss Confederation—J. B. Pioda.
- For Persia—M. Malcolm.
- For Japan—T. Ohyama.
- For Ecuador—J. T. Mera.
- For Bulgaria—D. Mintchovitch.
- For Denmark—Cte. Moltke.
- For Spain—Duc de Arcos.
- For France—Camille Barrère.
- For Sweden—Bildt.
- For the Netherlands—Jonkheer Van Der Goës.
- For Greece—Christ. Mizzopoulos.
- For Uruguay—Jean Cuestas.
- For Germany—A. Monts.
- For Cuba—Carlos de Pedroso.



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- For Austria and Hungary—H. Lützow, Ambassador for Austria-Hungary.  
For Norway—Carl Lövenskiöld.  
For Egypt—Aziz Izzit.  
For Guatamala—Thomas Segarini.  
For Ethiopia—Giuseppe Cuboni.  
For Nicaragua—Jean Giordano, Duc de Oratino.  
For the United States—Henry White.  
For Brazil—Barros Moreira.  
For Costa Rica—Rafael Montealegre.  
For Chili.—Victor Grez.  
For Peru—Andrés A. Caceres.  
For China—Houang Kao.  
For Paraguay—F. S. Benucci.  
For Turkey—M. Réchid.



## APPENDIX No. 20.

## REGULATIONS OF THE INSTITUTE.

## PART I.—THE GENERAL ASSEMBLY.

ARTICLE 1.—The French language is adopted for purposes of debate and for the proceedings of the Assembly.

ARTICLE 2.—The debates will be conducted according to parliamentary procedure.

ARTICLE 3.—The General Assembly may appoint sub-committees (commissions). Each sub-committee may be subdivided.

ARTICLE 4.—The General Assembly does not consider itself competent to discuss subjects which are not mentioned in the Agenda. In case of doubt, the Assembly decides whether any particular proposition, made at sittings of the sub-committee should be included or not, in the subjects indicated in the order of business.

ARTICLE 5.—The principal delegates shall select the members of their respective missions to serve on sub-committees. These members may, moreover, serve on two or more sub-committees.

ARTICLE 6.—Each State shall have only one vote in each sub-committee.

ARTICLE 7.—The sub-committee shall elect their own officers, and arrange the order of their proceedings. Each sub-committee shall nominate a reporter.

ARTICLE 8.—The reports of the sub-committees shall be printed before they are presented for discussion; and similarly, as a rule, with regard to every individual proposition submitted during the course of debate and taken into consideration by the General Assembly.

ARTICLE 9.—Every proposition must, as a rule, be submitted in writing to the president.

ARTICLE 10.—Votes are recorded by calling the names of the States in alphabetical order (*cappel nominal*). The voting power of each delegation corresponds to the group to which belongs the State which it represents.

ARTICLE 11.—The minutes of the meetings give concise reports of the proceedings. They record all the propositions made during the course of debate, the results of the voting, and a short summary of the arguments submitted.

Every member has the right to demand the insertion of his speech in extenso; but, in that case, he must supply the text in writing to the secretariat immediately after the meeting.

ARTICLE 12.—The secrecy of the debates at the sittings of the Assembly shall be strictly observed. Without, however, detracting from this rule, and in consideration, as far as possible, of the legitimate public interest, the secretariat is authorized to organize a system of press reports, under the ultimate supervision of the president.

ARTICLE 13.—Three months at least before the opening of each session, the draft plan prepared by the permanent committee shall be submitted for the approval of each of the adhering governments, in accordance with Article 4 of the convention of the



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7th June, 1905; and convening notices indicating the day and the hour of the opening of the session shall be sent to each of the delegates to the General Assembly when they have been appointed by their governments.

## PART II.—ADMINISTRATION.

ARTICLE 14.—The French language is adopted for the proceedings of the institute.

ARTICLE 15.—The president of the permanent committee, or, in his absence, the vice-president, represents the institute, fulfils all the functions and accomplishes all the duties which emanate from the civil status of the institute. He signs the warrants for expenses and all official documents. He directs and superintends all the business of the institute and of its administrative and technical departments.

ARTICLE 16.—The general administration of the International Agricultural Institute includes three general divisions, viz.:—

- (1) Division of the secretariat;
- (2) Division of statistics, agricultural intelligence and diseases of plants;
- (3) Division of economic and social institutions.

ARTICLE 17.—The secretary's department has charge of the following subjects:—

I. (a) *Registration*.—Opening, registering and distributing letters and despatches; personal correspondence; postponed business; receipt and distribution of statistical and bibliographical information; the post, telegraph and telephone services; press notices, &c.

(b) *Establishment*.—Maintenance and repairs of building; of the furniture; heating and lighting; superintendence of the messenger service; office supplies; sales and purchases; payment of the institute expenses; inventory of the furniture; the record of tradesmen's bills for goods supplied.

II. *Staff*.—Personnel of the institute; messengers; appointments, promotions, transfers, temporary staff, leave of absence, retirement allowances, and disciplinary measures; creation and abolition of posts; gratuities; regulations for remuneration on retirement; payments and allowances in general; relations between the institute and the public.

III. *Accountant's Department; Cashier*.—(a) *Accounts*; preparation of the budget; accounts and finance in general; control of authorized expenditure; control of the employment of funds; preparation and despatch of orders for payment; day-book; ledger; monthly statements of accounts; accounts of stock.

(b) *Cashier*.—Payments of salaries, wages, gratuities and current expenditure; receipts.

IV. *Library and Bibliography*.—Archives; receipt, classification and preservation of the files sent to the record room; classification and preparation of the library catalogues; purchase and exchange of books, reviews, newspapers and agricultural and other publications; subscriptions, general and special publications of the institute, exchanges, &c.; preparation of the general bibliographical index.

ARTICLE 18.—The following duties are allocated to the second division:—

I. *Agricultural Statistics*.—Inquiry, collection and publication of agricultural information and statistics relating to animal and vegetable culture and production, distribution and consumption of agricultural products; market prices and stocks of agricultural produce; general and special fluctuations in agricultural produce; collection and abstraction of periodical information on the agricultural situation in every country.

Collection of finance and customs statistics relating to agricultural produce; imports, exports; daily, weekly and monthly agricultural statistics; general statistics; special periodical or occasional statistics. Statistical departments of each country.



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II. *Agricultural Intelligence*.—Markets, sales, fairs, &c.; inquiries, collection and publication of practical information relating to animal and vegetable culture and production, and the trade in agricultural products; interpretation and comparison of various statistical data; inquiries and monographs regarding vegetable and animal produce.

III. *Diseases of Plants*.—Distribution and prevalence of diseases; remedies; destructive pests; entomology.

ARTICLE 19.—The third division deals with the following duties:—

Wages of agricultural labour; statistics and information concerning the organization of agricultural co-operation, insurance and credit.

ARTICLE 20.—The documents and information indicated in Articles 18 and 19 are supplied directly by the governments, or on their responsibility and through their instrumentality.

ARTICLE 21.—The allocation of the staff and employees, their salaries, as well as their rights to retirement allowance, will be fixed in accordance with the regulations adopted by the permanent committee.

### PART III.—THE PERMANENT COMMITTEE.

#### I. CONSTITUTION OF THE PERMANENT COMMITTEE; MEETINGS.

ARTICLE 22.—The French language is adopted for purposes of debate and for the proceedings of the permanent committee.

The chairman may, however, exceptionally and with the consent of the committee, authorize for purposes of debate the use of any other language by any delegate who does not speak French. He may also agree to its employment in special cases on condition that the speeches in question be invariably and immediately translated into French by one of the official translators of the institute or, should none be available, by another translator authorized for this purpose by the chairman.

The translator's version alone shall be accepted for the minutes.

#### *The Chairman.*

ARTICLE 23.—The chairman summons the members of the permanent committee in accordance with the procedure indicated in the special article relating to convening notices.

He maintains order at the sittings, he regulates the debates and announces the result of the divisions. When the votes on either side are equal the chairman has the casting vote.

He calls a member to order with or without insertion of the fact in the minutes.

The chairman of the permanent committee may attend the meetings of the various sub-committees, and he may take part in the proceedings.

Nevertheless, the chairman elected by each sub-committee presides at its meetings.

On receipt of notice from the chairman of the permanent committee, the chairman of each sub-committee is bound to summon its members within a week.

The chairman decides, ultimately, all questions of discipline concerning the staff of the institute which are not included in the provisions of Article 55.

#### *The Vice Chairman.*

ARTICLE 24.—The vice-chairman replaces the chairman in case of absence or of inability to attend, not only as regards the procedure at the meetings of the committee, but also as regards all his duties, powers, rights and prerogatives.



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*General Secretary.*

ARTICLE 25.—The general secretary performs the duties of secretary to the permanent committee. He drafts the minutes and reads them at each sitting.

He enters, in the order of their request, the names of the members of the permanent committee who desire to take part in the proceedings.

At the chairman's request he reads the motions, amendments, and any other document to be communicated to the committee.

He records the resolutions of the committee and announces the result of the voting.

He calls the roll when the voting takes place by *appel nominal*.

He supplies to the members of the permanent committee and of the sub-committees documents relating to subjects to be brought forward for discussion.

He supplies details regarding questions under discussion, if requested to do so by the chairman.

*Convening Notices.*

ARTICLE 26.—The chairman is bound to convene the permanent committee regularly, at least once a month, during the first week of the month or at such date as may be fixed by the committee.

The chairman is bound to convene the committee on the special request of at least five members of the committee representing a minimum of 15 votes.

The chairman may, exceptionally, summon the committee in case of necessity or urgency.

The chairman must indicate on the convening notice the list of subjects to be submitted to the committee.

Except in the case of urgency, the convening notice must reach the members of the committee one week before the date of the meeting.

*Agenda.*

ARTICLE 27.—The chairman settles the Agenda.

Members of the committee send to the general secretary, two days before the date of the meeting, the text of the motions which they desire to have inserted in the Agenda.

Subjects not indicated on the Agenda can be brought forward as special motions during the sitting provided that they are submitted to the chairman with the signatures of five members of the committee, representing a minimum of 15 votes.

The motions are submitted for discussion as entered in the Agenda. The committee may, however, give priority to any particular motion.

*Minutes.*

ARTICLE 28.—The minutes give a short epitome of the debates. They contain all the motions proposed during the debates, as well as the result of the voting. They give an abstract of the discussion.

Each member of the committee has the right to demand the insertion of his speech *in extenso*, but then he is bound to supply the text to the general secretary immediately after the sitting.

The general secretary is authorized to organize, under the supervision of the chairman, an official service of press notices.

ARTICLE 29.—Every communication submitted by a delegate for insertion in the minutes must first be supplied in the French language to the chairman who, after satisfying himself that the communication is in order, consults the permanent committee at the next sitting as regards its insertion, as a whole or in part, or with alterations.



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*Sittings.*

ARTICLE 30.—I. The chairman opens the sittings.

When the minutes have been read and confirmed, he opens the discussion on the first subject mentioned in the Agenda.

He calls on each speaker according to the order of the names as entered.

If necessary, and before any discussion takes place, he asks the reporters to make any statement regarding subjects on the Agenda. Reporters are exempt from the regulations regarding the inscription of their names, and they have a right to speak when they claim it.

When several motions are entered in the Agenda, the chairman consults the sub-committee in order to decide whether or not it is desired to discuss the subjects.

A member of the committee may claim to speak at any time on a point of order, or on a personal question.

Any motion by a member of the permanent committee may give rise to the nomination of a special reporter to be appointed by the committee.

The speaker must confine his remarks to the subject under discussion. If he departs therefrom, the chairman calls him to order.

There can be no debate on a call to order.

The 'previous question,' that is to say, the declaration that there is no ground for debate can always be put.

Any additional motion and amendment can be submitted before or during the debate. It must be submitted in writing.

The chairman announces the additional motion or amendments and submits them for discussion in accordance with the procedure for the principal motion.

As regards financial questions, every motion submitted by a member of the committee shall, before discussion, and as contemplated in Article 32, be referred to the first sub-committee, which shall report on the subject and propose the course of action to be adopted by the permanent committee.

II. The chairman closes the discussion when all the speakers whose names are noted have been heard.

During the discussion, the closure may be moved at the request of, at least, five members of the committee representing a minimum of 15 votes.

There can be no debate on a demand to move the closure. It is carried by a majority of two-thirds of the members present at the meeting.

*Votes.*

ARTICLE 31.—The vote is decided by an absolute majority of the votes of the states. It is taken by roll-call (*appel nominal*) in the alphabetical order of the names of the states, whenever a member of the committee makes the demand.

The chairman may consult the committee whether the vote may be taken by a show of hands.

Voting by ballot is compulsory on the demand of at least five delegates, representing a minimum of 15 votes.

This method is obligatory whenever the motion deals with personal questions.

## II. SUB-COMMITTEES.

ARTICLE 32.—The permanent committee selects from its own members three standing sub-committee (*commissions*).

I. The first sub-committee deals with secretarial business, *i.e.*, the staff, establishment, finance, accounts, library, bibliography, receipt and distribution of statistical and bibliographical information.



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II. The second sub-committee deals with all matters indicated in paragraphs (a), (b) and (d) of Article 9 of the *Acte final*, viz.:—

(a) The collection, elaboration and publication, with as little delay as possible, of statistical, technical, or economic information regarding the cultivation of the soil, its production, whether animal or vegetable, the trade in agricultural products, and the prices obtained on the various markets.

(b) The supply to interested parties, in a similarly rapid manner, of full information of the nature above mentioned.

(d) The notification of the new diseases of plants which may appear in any part of the world, indicating the districts affected, the spread of the disease, and, if possible, the efficacious means of resistance.

III. The third sub-committee deals with all questions indicated in paragraphs (c) and (e) of Article 9 of the *Acte final*, viz.:—

(c) The indication of the wages of rural labour.

(e) The consideration of questions relating to agricultural co-operation, insurance, and credit, in all their forms, collecting and publishing information which may be useful in the various countries for the organization of undertakings relating to agricultural co-operation, insurance and credit.

As regards paragraph (f) of Article 9 of the *Acte final* of 1905\*, it is agreed that the subjects indicated therein belong exclusively to the competence of the permanent committee.

Members of these permanent sub-committees who belong to the same group of states may interchange at the beginning of each year.

A member of one of the sub-committees may, with the previous approval of the special committee, also be replaced by a member of the permanent committee, provided he belongs to his own group and does not form part of the permanent sub-committees.

The committee may, whenever it seems desirable to do so, appoint special committees independently of the permanent sub-committees.

Every member of the committee is entitled to attend the meetings of sub-committees to which he does not belong, but without the right to speak or to vote.

Each sub-committee may be subdivided.

*The right to vote.*—In each sub-committee, members of the permanent committee have only one vote for each state; nevertheless, the presence of five delegates, separately representing five different states and holding at least 15 votes, is required in order to validate the proceedings.

*Appointment of the Sub-committees and of the Special Committee.*

ARTICLE 33.—Nominations to the permanent or special sub-committee are made by a special committee composed of five members, viz.: the chairman of the permanent committee; the vice-chairman; and the chairman of the three sub-committees referred to in Article 32.

At the outset, the three members of this committee are selected by the chairman from each of the categories indicated below, and their duties will cease when the members of the three sub-committees have been appointed.

In selecting the members of the sub-committees, the special committee will take into account the nature of the duties entrusted to them, the composition of the committee itself, and the special qualifications of its members, and the wishes they have expressed.

*Constitution.*—For purposes of constituting the permanent sub-committees the states are divided into three classes†:—

The first category includes the countries placed in group I., mentioned in Article 10 of the *Acte final*. It is entitled to eight members on each permanent sub-committee



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The second category includes the states belonging to groups II. and III. indicated in Article 10 of the *Acte final*. It is entitled to three members on each permanent sub-committee.

The third category includes the states shown in groups IV. and V. of Article 10 of the *Acte final*. It is entitled to four members on each permanent sub-committee.

The special committee may replace a member of a permanent sub-committee in case of prolonged absence.

The committee may also add one or more members temporarily to any permanent sub-committee in order to facilitate inquiry into any special technical subject which it is investigating.

The convening of the meetings of the three permanent sub-committees must be made in consultation with the special committee.

ARTICLE 35.—The three permanent sub-committees, duly constituted, form the consists of a chairman, vice-chairman and reporter.

They regulate the order of their proceedings.

The reports of the permanent sub-committee are printed before being submitted to the permanent committee for discussion.

The membership of each permanent sub-committee, its executive, and its functions are limited to a period of three years.

Nominations to each of the permanent sub-committees are made every three years by the special committee at its opening sitting.

ARTICLE 35.—The three permanent sub-committees, duly constituted, form the consultative body.

Each sub-committee is charged with the duty of investigating, and of expressing an opinion on, subjects within its own sphere, as indicated in the several paragraphs of Article 32.

Each sub-committee is entitled to initiate proposals in reference to subjects within its scope.

Each sub-committee may also take cognizance of questions which are referred to it by the permanent committee.

ARTICLE 36.—The chairman of the permanent committee once a year convenes the members of the special committee and the council of heads of divisions in order to issue instructions of an administrative, a financial or scientific nature for submission to the sub-committees and to the permanent committee.

Each proposal forms the subject of a special report.

### *Technical Experts.*

ARTICLE 37.—The permanent committee and sub-committees may, at the request of one of their members and on his responsibility, invite the attendance and assistance of technical experts who are able to supply information on special or technical subjects which the permanent committee or the sub-committees will have to investigate.

The attendance of these technical experts at sittings of the permanent committee, or of a sub-committee, will cease as soon as they have supplied the information required.

### *Alteration of Rules.*

ARTICLE 38.—Any alteration or revision of the present regulations can only be considered on the written demand of at least ten delegates, representing a minimum of 30 votes.

The demand can only be submitted to the committee on the expiration of three months from the date when a special notification of such alterations or revisions has been sent to the delegates of each state.



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## PART IV.—THE STAFF.

ARTICLE 39.—The division and assignment of duties, the allocation of the staff and employees, as well as their salaries, are fixed as indicated in these regulations. Independently of salary, the staff and employees are entitled to compensation on retirement on the conditions indicated later.

The distribution of the staff is made by the special committee in consultation with the general secretary and the heads of branches.

ARTICLE 40.—The staff of the institute consists of:—

One general secretary, two heads of divisions, one librarian, heads of branches, assistants to general secretary, editors, translators (1st and 2nd class), clerks (1st and 2nd class), shorthand typists.

ARTICLE 41.—The salaries are fixed as follows:—

|   | Francs.          | Francs. |
|---|------------------|---------|
| General secretary.. . . . .                   | 22,000           |         |
| Heads of divisions.. . . . .                  | 20,000           |         |
| Librarian.. . . . .                           | 10,000 to 14,000 |         |
| Heads of branches.. . . . .                   | 10,000 “ 15,000  |         |
| Assistants to the general secretary.. . . . . | 6,000 “ 9,000    |         |
| Editors, translators (1st class).. . . . .    | 5,000 “ 8,000    |         |
| Editors, translators (2nd class).. . . . .    | 4,000 “ 7,200    |         |
| 1st class clerks.. . . . .                    | 3,000 “ 5,400    |         |
| 2nd class clerks.. . . . .                    | 2,400 “ 4,320    |         |
| Shorthand typists.. . . . .                   | 1,500 “ 3,240    |         |

The librarian, heads of branches, assistants to the general secretary, editors, translators, clerks and shorthand typists may obtain, after each period of four years' service, an increase corresponding to one-tenth of the minimum salary of their grade.

Apart from the salaries fixed by this article the permanent committee may grant a personal salary to the general secretary and to the heads of divisions, in course of time and in particular cases which the committee alone decide.

ARTICLE 42.—Beyond the scale fixed above and within the limits of the budget, technical assistants may, provisionally and for special work, be attached to the staff of the institute. These officials have no connection with the regular administrative staff.

Adhering states may, at the request and on the responsibility of their delegate and with the approval of the permanent committee, authorize the temporary attendance at the institute without any liability on its part, of persons who wish to study its organization and functions.

ARTICLE 43.—The subordinate staff consists of:—Ushers, housekeeper, office-keepers, messengers.

ARTICLE 44.—The wages are fixed on the following scale:—

|                                  | Francs.        | Francs. |
|----------------------------------|----------------|---------|
| Ushers and housekeeper.. . . . . | 2,000 to 2,800 |         |
| Office-keepers.. . . . .         | 1,800 “ 2,520  |         |
| Messengers.. . . . .             | 1,400 “ 1,960  |         |

An increase of salary corresponding to one-tenth of the minimum salary of their grade may be allowed after each period of four years' service.

ARTICLE 45.—Salaries, gratuities and remunerations of all kinds allowed to the officials must be charged to the vote for salaries relating to the staff of the institute.

Such remuneration must always be subject to the formal decision of the special committee and the approval of the permanent committee.



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ARTICLE 46.—The composition of the staff of the institute is international.

ARTICLE 47.—The general secretary, the heads of divisions, the librarian, the assistant to general secretary, the heads of branches, the editors, translators, clerks and shorthand typists are appointed and liberated by the permanent committee on the advice of the special committee mentioned in article 33.

The subordinate staff is appointed by the chairman, on the nomination of the general secretary, within the limits provided by the budget.

ARTICLE 48.—A council consisting of the general secretary and the heads of divisions is established under the presidency of the chairman.

The council considers questions allotted to it by article 57 of the present regulations.

ARTICLE 49.—The staff of the institute is appointed by nomination, without examination, after inquiry by the permanent committee as regards the scientific or administrative qualifications and abilities of the candidates for the various posts.

The entrance limit of age for editors, translators, clerks, and shorthand typists is 30 years.

No candidate may be recommended to the special committee without the previous approval of the delegate of the country to which the candidate belongs.

ARTICLE 50.—The names of candidates are submitted to the special committee and to the permanent committee in the order of their entry on a list kept by the general secretary.

Candidates will be noted on the list when they have given proof of a general knowledge of the French language. An exception on this point is made in certain cases, which the permanent committee alone will decide.

ARTICLE 51.—Editors, translators, clerks and shorthand typists are not definitely appointed until after a probation of six months.

At the end of that period, the general secretary, after consultation with the heads of departments to which the probationers have been attached, presents a report on their qualifications and suitability to the special committee who, if advisable, proposes to the permanent committee that they be permanently appointed.

If the report of the general secretary is not favourable the probationers are immediately discharged.

ARTICLE 52.—Transfers among the officials and employees are authorized in exceptional cases. These changes may not give rise to any modification in the pecuniary position of the officials concerned.

ARTICLE 53.—Every official and employee is bound to devote himself exclusively to the performance of his duties.

It is forbidden, under pain of dismissal, to combine regular external employment with any post at the institute.

#### *Conditions of Promotion.*

ARTICLE 54.—Every official on appointment or on promotion commences at the minimum salary of the grade.

Nevertheless, the new salary can never be less than that which the official received before his promotion.

Promotion takes place from one class to the class immediately above as indicated by salary.

No person can be promoted to a higher class until after four years service in the lower grade to which he belongs.

In exceptional cases, which the permanent committee alone will decide, the conditions mentioned in the first and fourth paragraphs of this article may however be departed from.



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*Discipline.*

ARTICLE 55.—The disciplinary measures applicable to the personnel are as follows:

1. Reprimand.
2. Censure, with a recorded entry, which may involve disqualification from promotion for one year.
3. Temporary suspension.
4. Simple dismissal.
5. Dismissal, involving the loss of claim to compensation.

Reprimand and censure are pronounced by the president of the institute on the report of the general secretary, after consultation with the head of the division under whose orders the officer or employee was serving.

Suspension and dismissal are pronounced by the permanent committee at the suggestion of the special committee referred to in Article 33.

ARTICLE 56.—The disciplinary measures (Article 55) applicable to the general secretary and to the heads of divisions are taken by the permanent committee on the advice of the special committee.

ARTICLE 57.—The special committee, on the report of the head of the branch under whom the official or the employee is serving, decides whether the officer or employee shall be sent before the council of heads of branches, and he appoints a reporter from among the members of this council.

The reporter presents to the official concerned a statement of the complaint, he receives his explanations and any document handed in for his defence. The officer or employee indicates the person whom he wishes to be heard regarding the complaint against him.

The council, convened by the president, receives the report and hears the persons called officially by the president or by desire of the person concerned as well as the official himself.

The council then considers the matter and votes by ballot. If the votes are equally divided, the decision which is the more favourable to the person concerned is adopted.

ARTICLE 58.—Every official is expressly forbidden, under pain of the most serious disciplinary measures, to make any public communication respecting official information which comes to his knowledge as a member of the staff of the institute.

*Holidays.*

ARTICLE 59.—In addition to public holidays, when the staff may possibly be required to attend, the regular leave is as follows:—

Sixty days annually for the general secretary, the heads of divisions, the librarian, the heads of branches and the assistants to the general secretary.

Thirty days annually for the clerks and shorthand typist.

Thirty days annually for the editors and translators.

Officers may take leave in one period, or partially, at any season of the year.

Nevertheless, officials may not go on leave until they have made arrangements regarding their work and received the sanction of the president and of the general secretary.

ARTICLE 60.—Absence through illness, when duly reported and verified in accordance with the following article, will not be included in the number of days of regular leave.

Any absence through illness must at once be notified by the officer concerned to the head of the branch and to the general secretary.



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If the illness lasts more than two days, the officer is bound to supply a medical certificate.

It is the duty of the general secretary to verify the report as to the officer's health, and to obtain confirmation as often as he thinks necessary.

ARTICLE 61.—Absence for any other reason than that of illness must be immediately notified to the head of the branch and to the general secretary, with particulars as to the cause of absence.

The president and the general secretary decide as to the reasons which may justify such absence.

ARTICLE 62.—In the case of illness, an official receives full pay during the first six months. After that period, he may be kept on half pay, but only for a further period of four months.

In the case of leave for special reasons, an officer receives full pay during a period of two months.

After that time, the officer may be absent for a period of two months only, without pay.

An officer who does not resume his duties after the expiration of the periods above mentioned will be considered as having resigned.

SUPPLEMENT (I.) TO APPENDIX IV.

(See Article 33.)

EXPLANATORY TABLE REGARDING THE CONSTITUTION OF THE SUB-COMMITTEE.\*

The fifteen members of each sub-committee are selected from the delegates according to the following classification:—

- Eight members from 1st group.
- Three members from the 2nd and 3rd group combined.
- Four members from the 4th and 5th groups combined.
- This distribution is based on the following particulars.

| Groups of Countries. | Number of Votes. | Number of Countries. | Total Number of Votes. | Number of Members in each Sub-Committee. | Relative proportion to the Total Number of Votes. |
|----------------------|------------------|----------------------|------------------------|--|---|
| I.....               | 5                | 14                   | 70                     | 8  | 1 : 8·7   |
| II.....              | 4                | 4                    | 16                     | 3  | 1 : 7·4   |
| III.....             | 3                | 2                    | 6                      |  |   |
| IV.....              | 2                | 12                   | 24                     | 4  | 1 : 8·5   |
| V.....               | 1                | 10                   | 10                     |  |   |
|                      |                  | 42                   | 126                    | 15                                       | 1 : 8·4   |

\* This classification was made in May, 1908, according to the grouping of the adhering countries at that date.



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## LIST OF ADHERING COUNTRIES CLASSIFIED INTO GROUPS.\*

| GROUP I.   | GROUP II.  | GROUP III.                 | GROUP IV.  | GROUP V.  |
|--|--|----------------------------|--|---|
| 5 Votes.<br>14 Countries.  | 4 Votes.<br>4 Countries.                           | 3 Votes.<br>2 Countries.   | 2 Votes.<br>12 Countries.  | 1 Vote.<br>10 Countries.  |
| 1. Germany.<br>2. Argentina.<br>3. Austria.<br>4. Hungary.<br>5. Brazil.<br>6. China.<br>7. Spain.<br>8. United States of America.<br>9. France.<br>10. Great Britain and Ireland.<br>11. Italy.<br>12. Japan.<br>13. Roumania.<br>14. Russia. | 1. Egypt.<br>2. India.<br>3. Mexico.<br>4. Persia. | 1. Bulgaria.<br>2. Servia. | 1. Belgium.<br>2. Chili.<br>3. Denmark.<br>4. Canada.<br>5. Australia.<br>6. New Zealand.<br>7. Greece.<br>8. Norway.<br>9. Holland.<br>10. Portugal.<br>11. Sweden.<br>12. Switzerland. | 1. Costa Rica.<br>2. Cuba.<br>3. Ecuador.<br>4. Ethiopia.<br>5. Mauritius.<br>6. Luxemburg.<br>7. Montenegro.<br>8. Nicaragua.<br>9. Peru.<br>10. Salvador. |

\* This classification was made in May, 1903, according to the grouping of the adhering countries at that date.

## SUPPLEMENT (II.) TO APPENDIX IV.

(See Articles 41 and 44.)

## A.—TABLE INDICATING THE SALARIES OF THE STAFF.

|  |        | After<br>4<br>Years. | After<br>8<br>Years. | After<br>12<br>Years. | After<br>16<br>Years. | After<br>20<br>Years. | After<br>24<br>Years. | After<br>28<br>Years. | After<br>32<br>Years. |
|--|--------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | Frs.   | Frs.                 | Frs.                 | Frs.                  | Frs.                  | Frs.                  | Frs.                  | Frs.                  | Frs.                  |
| General Secretary. . . . .                   | 22,000 | .....                | .....                | .....                 | .....                 | .....                 | .....                 | .....                 | .....                 |
| Head of Division . . . . .                   | 20,000 | .....                | .....                | .....                 | .....                 | .....                 | .....                 | .....                 | .....                 |
| Librarian . . . . .                          | 10,000 | 11,000               | 12,000               | 13,000                | 14,000                | .....                 | .....                 | .....                 | .....                 |
| Head of Branch . . . . .                     | 10,000 | 11,000               | 12,000               | 13,000                | 14,000                | 15,000                | .....                 | .....                 | .....                 |
| Assistants to the General Secretary. . . . . | 6,000  | 6,600                | 7,200                | 7,800                 | 8,400                 | 9,000                 | .....                 | .....                 | .....                 |
| Translators (1st Class) . . . . .            | 5,000  | 5,500                | 6,000                | 6,500                 | 7,000                 | 7,500                 | 8,000                 | .....                 | .....                 |
| Translators (2nd Class) . . . . .            | 4,000  | 4,400                | 4,800                | 5,200                 | 5,600                 | 6,000                 | 6,400                 | 6,800                 | 7,200                 |
| Clerks (1st Class) . . . . .                 | 3,000  | 3,300                | 3,600                | 3,900                 | 4,200                 | 4,500                 | 4,800                 | 5,100                 | 5,400                 |
| Clerks (2nd Class) . . . . .                 | 2,400  | 2,640                | 2,880                | 3,120                 | 3,360                 | 3,600                 | 3,840                 | 4,080                 | 4,320                 |
| Shorthand-typists . . . . .                  | 1,800  | 1,980                | 2,160                | 2,340                 | 2,520                 | 2,700                 | 2,880                 | 3,060                 | 3,240                 |
| Ushers and porter . . . . .                  | 2,000  | 2,200                | 2,400                | 2,600                 | 2,800                 | .....                 | .....                 | .....                 | .....                 |
| Office keepers . . . . .                     | 1,800  | 1,980                | 2,160                | 2,340                 | 2,520                 | .....                 | .....                 | .....                 | .....                 |
| Messengers . . . . .                         | 1,400  | 1,540                | 1,680                | 1,820                 | 1,960                 | .....                 | .....                 | .....                 | .....                 |



B.—TABLE INDICATING THE DISTRIBUTION OF THE STAFF.

| Departments.                     | Officials and Employees.          | No. | Salary. | Total.  |         |
|----------------------------------|-----------------------------------|-----|---------|---------|---------|
|                                  |                                   |     | Frs.    | Frs.    | Frs.    |
| President's Branch .. . . . .    | Editor-translator of 2nd Class..  | 1   | 4,000   | 4,000   | 4,000   |
| 1st Division :                   |                                   |     |         |         |         |
| General Secretary's Branch....   | General Secretary... ..           | 1   | 22,000  | 22,000  | 51,200  |
|                                  | Assistant. . . . .                | 1   | 7,200   | 7,200   |         |
|                                  | " . . . . .                       | 1   | 6,000   | 6,000   |         |
|                                  | Editor-translators of 1st Class.  | 1   | 5,000   | 5,000   |         |
|                                  | Editor-translators of 2nd Class.  | 2   | 4,000   | 8,000   |         |
| Library .. . . . .               | 1st Class Clerk.. . . . .         | 1   | 3,000   | 3,000   | 23,000  |
|                                  | Librarian .. . . . .              | 1   | 10,000  | 10,000  |         |
|                                  | Editor-translators of 1st Class.. | 2   | 5,000   | 10,000  |         |
|                                  | 1st Class Clerk.....              | 1   | 3,000   | 3,000   |         |
| 2nd Division :                   |                                   |     |         |         |         |
| I. General Statistics.....       | Head of Division.....             | 1   | 20,000  | 20,000  | 69,200  |
|                                  | Head of Branch.. . . . .          | 1   | 10,000  | 10,000  |         |
|                                  | Editor-translators of 1st Class.  | 2   | 5,000   | 10,000  |         |
|                                  | 1st Class Clerks.....             | 1   | 3,000   | 3,000   |         |
|                                  | 2nd Class Clerks.....             | 1   | 2,400   | 2,400   |         |
| II. Intelligence .. . . . .      | Head of Branch. . . . .           | 1   | 10,000  | 10,000  |         |
|                                  | Editor-translator of 2nd Class..  | 1   | 4,000   | 4,000   |         |
|                                  | 2nd Class Clerk.....              | 1   | 2,400   | 2,400   |         |
| III. Diseases of Plants.....     | 2nd Class Clerk.....              | 1   | 5,000   | 5,000   |         |
|                                  | Editor-translator of 2nd Class..  | 1   | 2,400   | 2,400   |         |
| 3rd Division :                   |                                   |     |         |         |         |
| I. Rural Labour.....             | Editor-translator of 1st Class..  | 1   | 5,000   | 5,000   | 24,000  |
| II. Economic and Social Institu- | 2nd Class Clerk.....              | 1   | 2,400   | 2,400   |         |
| tions .. . . . .                 | Head of Branch.....               | 1   | 10,000  | 10,000  |         |
|                                  | Editor-translator of 2nd Class..  | 1   | 4,000   | 4,000   |         |
|                                  | 1st Class Clerk.....              | 1   | 3,000   | 3,000   |         |
|                                  | Shorthand-typists.....            | 3   | 1,800   | 5,400   | 5,400   |
| Total .. . . . .                 |                                   |     |         | 177,200 | 177,200 |
| Subsidiary Staff.                |                                   |     |         |         |         |
| 1st Division :                   |                                   |     |         |         |         |
| General Secretary's Branch .. .  | Usher.....                        | 1   | 2,000   | 2,000   | 12,600  |
|                                  | Porters.....                      | 3   | 2,000   | 6,000   |         |
|                                  | Office-keeper.....                | 1   | 1,800   | 1,800   |         |
| Library .. . . . .               | Messengers .. . . . .             | 2   | 1,400   | 2,800   | 4,600   |
|                                  | Office-keeper.....                | 1   | 1,800   | 1,800   |         |
| 2nd Division .. . . . .          | Messengers. . . . .               | 2   | 1,400   | 2,800   | 3,200   |
|                                  | Office-keeper.....                | 1   | 1,800   | 1,800   |         |
| 3rd Division .. . . . .          | Messengers .. . . . .             | 1   | 1,400   | 1,400   | 3,200   |
|                                  | Office-keeper.....                | 1   | 1,800   | 1,800   |         |
|                                  | Messenger.....                    | 1   | 1,400   | 1,400   |         |
|                                  |                                   |     |         | 23,600  | 23,600  |
| Unattached Staff :—              |                                   |     |         |         |         |
| Translators.....                 |                                   |     |         | 5,000   |         |
| Mechanic .. . . . .              |                                   |     |         | 2,400   |         |
| Total .. . . . .                 |                                   |     |         |         | 7,400   |
| Reserve for personal allowances. |                                   |     |         | 50,000  |         |
| Gratuities and extra staff.....  |                                   |     |         | 6,000   |         |
| Total .. . . . .                 |                                   |     |         |         | 56,000  |

SUMMARY.

|  | Francs. |
|--|---------|
| Total salaries of officials and employees .. . . . . | 177,200 |
| Total salaries of subsidiary staff.....              | 23,600  |
| Unattached staff .. . . . .                          | 7,400   |
| Reserve, gratuities, and extra staff.....            | 56,000  |
| Total.....   | 264,200 |



## SESSIONAL PAPER No. 15

## C.—STATEMENT OF ACCOUNTS FOR THE YEAR 1908.

| INCOME.  |  | Amount<br>received up to<br>October 31,<br>1908. | Amount<br>still due for<br>1908.       | Total.     |
|--|--|--|--|------------|
|  |  | Francs.  | Francs.                                | Francs.    |
| Ordinary Receipts :—   |  |  |  |            |
| I. State Contributions :   |  |  |  |            |
| 14 States of the 1st Group. ....   |  | 132,000  | 204,000                                | 336,000    |
| 3 " 2nd " .....  |  | 36,000   |  | 36,000     |
| 2 " 3rd " .....  |  | 6,000  | 6,000                                  | 12,000     |
| 14 " 4th " .....   |  | 25,975 69  | 15,024 31                              | 42,000     |
| 12 " 5th " .....   |  | 3,000  | 15,000                                 | 18,000     |
| Total .....  |  | 203,975 69                                       | 240,024 31                             | 444,000    |
| II. Interest on deposits at the Bank of Italy and on a bond<br>for 1,000 liras (nominal) in Italian 3½ per cent Stock. |  | 478 70   | 2,321 30                               | 2,800      |
| Extraordinary Receipts :—  |  |  |  |            |
| III. Amount received for the year 1909 :   |  |  |  |            |
| From 2 States of the 4th group. ....   |  | 2,056  |  | 2,056      |
| " 1 State " 5th " .....  |  | 38 65  |  | 38 65      |
| Total .....  |  | 2,094 65   |  | 2,094 65   |
| Total income .....   |  | 206,542 04                                       | 242,345 61                             | 448,891 65 |
| EXPENDITURE.   |  | Amount<br>paid up to<br>October 31,<br>1908.     | Amount<br>still to be paid<br>in 1908. | Total.     |
|  |  | Francs.  | Francs.                                | Francs.    |
| Ordinary Expenditure—  |  |  |  |            |
| I. Staff :   |  |  |  |            |
| Salaries and allowances .....  |  | 4,786 80   | 2,513 20                               | 7,300      |
| II. Maintenance :  |  |  |  |            |
| 1. Upkeep of building .....  |  | 228 20   | 221 80                                 | 450        |
| 2. " garden .....  |  |  | 550                                    | 550        |
| 3. " furniture .....   |  |  | 200                                    | 200        |
| 4. Lighting .....  |  | 387 56   | 1,312 44                               | 1,900      |
| 5. Electric Power .....  |  | 269 60   | 1,350 46                               | 1,620      |
| 6. Heating .....   |  |  | 3,100                                  | 3,100      |
| 7. General expenses .....  |  | 715  | 85                                     | 800        |
| 8. Water rate (annual) .....   |  | 603 35   | 603 35                                 | 1,206 70   |
| Total .....  |  | 2,403 71   | 7,422 99                               | 9,826 70   |
| III. Office Expenses and Correspondence :  |  |  |  |            |
| 1. Stock .....   |  | 862 90   | 137 10                                 | 1,000      |
| 2. Expenses of correspondence :  |  |  |  |            |
| (a) Post .....   |  | 362 07   | 237 93                                 | 600        |
| (b) Telegraph .....  |  | 58 85  | 291 15                                 | 350        |
| (c) Telephone .....  |  |  | 200                                    | 200        |
| 3. Subscription to the City Telephone .....  |  |  | 255                                    | 255        |
| 4. Allowances to Postal officials for special services<br>to the Institute .....                                       |  | 170  | 330                                    | 500        |
| Total .....  |  | 1,453 82   | 1,451 18                               | 2,905      |
| IV. Library and Printing :   |  |  |  |            |
| 1. Purchase of books, periodicals, and newspapers. .   |  | 162 70   | 1,237 30                               | 1,400      |
| 2. Translation allowances .....  |  |  | 300                                    | 300        |
| 3. Cost of printing .....  |  | 539 50   | 1,460 50                               | 2,000      |
| Total .....  |  | 702 20   | 2,997 80                               | 3,700      |



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STATEMENT OF ACCOUNTS FOR THE YEAR 1908—Continued.

| EXPENDITURE.                            | Amount paid up to October 31, 1908.     | Amount still to be paid in 1908. | Total.      |
|---|---|----------------------------------|-------------|
|   | Francs.                                 | Francs.                          | Francs.     |
| V. Miscellaneous expenses :             |   |                                  |             |
| 1. Various allowances .....             |   | 1,000                            | 1,000       |
| 2. Sundry and unforeseen expenses.....  | 12·70                                   | 11,455·60                        | 11,468·30   |
| Total.....                              | 12·70                                   | 12,455·60                        | 12,468·30   |
| Extraordinary Expenditure—              |   |                                  |             |
| VI. Installation expenses . . . . .     | 1,463·15                                | 4,636·85                         | 6,100       |
| Total expenditure .....                 | 10,822·38                               | 31,477·62                        | 42,300      |
|   |   |                                  |             |
| BALANCE.                                | Amount received up to October 31, 1908. | Amount still to be paid in 1908. | Total.      |
|   | Francs.                                 | Francs.                          | Francs.     |
| Excess of income over expenditure ..... | 195,726·66                              | 210,867·99                       | *406,594·65 |

\* This sum includes 2094·65 francs paid in advance for 1909.

SUMMARY OF ACCOUNTS FOR THE YEAR 1908.

| INCOME.   | Amount received up to October 31, 1908. | Amount still due for 1908. | Total.     |
|---|---|----------------------------|------------|
|   | Francs.                                 | Francs.                    | Francs.    |
| Ordinary Receipts—                              |   |                            |            |
| I. State contributions .....                    | 203,975·69                              | 240,024·31                 | 444,000    |
| II. Interest on deposits, &c.....               | 478·70                                  | 2,321·30                   | 2,800      |
| Extraordinary Receipts—                         |   |                            |            |
| III. Amount already paid for the year 1909..... | 2,094·65                                |                            | 2,094·65   |
| Total income.....                               | 206,549·04                              | 242,345·61                 | 448,894·65 |



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SUMMARY OF ACCONTS FOR THE YEAR 1908—*Continued.*

| EXPENDITURE.                               | Amount<br>paid<br>up to<br>October 31,<br>1908.     | Amount<br>still to be<br>paid in<br>1908. | Total.      |
|--|---|---|-------------|
|  | Francs.   | Francs.                                   | Francs.     |
| Ordinary Expenditure—                      |   |   |             |
| I. Allowances and salaries.....            | 4,786 80  | 2,513 20                                  | 7,300       |
| II. Maintenance.....                       | 2,403 71  | 7,422 99                                  | 9,826 70    |
| III. Office expenses and correspondence... | 1,453 82  | 1,451 18                                  | 2,905       |
| IV. Library and printing.....              | 702 20  | 3,997 80                                  | 3,700       |
| V. Miscellaneous expenses.....             | 12 70   | 12,455 60                                 | 12,468 30   |
| Extraordinary Expenditure—                 |   |   |             |
| VI. Installation expenses .....            | 1,463 15  | 4,636 85                                  | 6,100       |
| Total expenditure.....                     | 10,822 38   | 31,477 62                                 | 42,300      |
| BALANCE.                                   | Amount<br>received<br>up to<br>October 31,<br>1908. | Amount<br>still due for<br>1908.          | Total.      |
|  | Francs.   | Francs.                                   | Francs.     |
| Excess of income over expenditure .....    | 195,726 66  | 210,867 99                                | *406,594 65 |

\* This sum includes 2,094 65 francs paid in advance for 1909.

## D.—BUDGET FOR THE YEAR 1909.

| INCOME.   | Francs.   | Francs.    |
|---|-----------|------------|
| Balance from the preceding account.....   |           |            |
| 1. Excess of income over expenditure in 1908 .....  |           | 404,500 00 |
| 2. Amount received for the year 1909 from :   |           |            |
| (a) Two states (Group IV.) .....  | 2,036     |            |
| (b) One state ( " V.) .....   | 38 65     |            |
|   |           | 2,094 65   |
| Ordinary Receipts—  |           |            |
| I. State contributions:   |           | 406,594 65 |
| 14 states of group I.....   | 336,000   |            |
| 3 " II.....   | 36,000    |            |
| 2 " III.....  | 12,000    |            |
| 14 " *IV.....   | 39,944    |            |
| 12 " *V.....  | 17,961 35 |            |
| * See also above.   |           | 441,905 35 |
| II. Interest on deposits at the Bank of Italy and on a bond for 1,000 liras (nominal) in Italian 3½ per cent stock..... |           | 1,000      |
| Total income .....  |           | 849,500    |



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BUDGET FOR THE YEAR 1909—*Continued.*

| EXPENDITURE.  |         |         |
|---|---------|---------|
|   |         |         |
| Ordinary Expenditure—   | Francs. | Francs. |
| I. Staff :  |         |         |
| 1. Cost of representation :   |         |         |
| (a) President.....  | 10,000  |         |
| (b) Vice-president..  | 5,000   | 15,000  |
| 2. Salaries and allowances, according to the establishment.....   |         | 264,200 |
| 3. Maximum, estimate for retirement allowances to the staff and employees at the rate of 25 per cent of their salaries .. |         | 26,580  |
| 4. Amount to transfer to a Provident and Pension Fund at the rate of 10 per cent on the salaries paid.....                |         | 2,360   |
| Total.....  |         | 308,140 |
| II. Maintenance :   |         |         |
| 1. Upkeep of building.....  |         | 4,250   |
| 2. " two lodges.....  |         | 400     |
| 3. " garden.....  |         | 1,700   |
| 4. " furniture.....   |         | 3,500   |
| 5. Lighting :   |         |         |
| (a) Electric light.....   | 3,500   |         |
| (b) Other means.....  | 100     | 3,600   |
| 6. Electric power :   |         |         |
| (a) Pneumatic post ..   | 3,500   |         |
| (b) Vacuum cleaner.....   | 250     |         |
| (c) Passenger lift.....   | 250     |         |
| (d) Goods lifts (3).....  | 200     |         |
| (e) Ventilators ..  | 800     | 5,000   |
| 7. Heating :  |         |         |
| (a) Coal ..   | 4,400   |         |
| (b) Gas ..  | 600     | 5,000   |
| 8. General expenses.....  |         | 2,550   |
| Total.....  |         | 26,000  |
| III. Office expenses and correspondence :   |         |         |
| 1. Stock ..   |         | 3,000   |
| 2. Expenses of correspondence :   |         |         |
| (a) Post ..   | ?       |         |
| (b) Telegraph ..  | ?       |         |
| (c) Telephone ..  | ?       |         |
|   |         | 300,000 |
| 3. Telephone subscription (for messages within the city).....   |         | 540     |
| 4. Allowances to postal officials for special services to the institute ..  |         | 2,460   |
| Total . . .   |         | 306,000 |
| IV. Library and printing :  |         |         |
| 1. Purchase of books, periodicals and newspapers ..   |         | 25,000  |
| 2. Cost of printing.....  |         | 25,000  |
| Total.....  |         | 50,000  |
| V. General expenses :   |         |         |
| 1. Sundry and unforeseen expenses.....  |         | 30,360  |
| Extraordinary expenditure—  |         |         |
| VI. Installation expenses.....  |         | 20,000  |
| Total expenditure ..  |         | 749,500 |
| Surplus for transfer to a Special Reserve Fund ..   |         | 100,000 |



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## SUMMARY OF THE BUDGET FOR THE YEAR 1909.

## INCOME.

|   | Francs.        |
|---|----------------|
| Balance from the preceding account..... | 406,554·65     |
| Ordinary receipts :—                    |                |
| I. State contributions.....             | 441,905·35     |
| II. Interest.. . . .                    | 1,000          |
| Total.....                              | <u>849,500</u> |

## EXPENDITURE.

|   |                |
|---|----------------|
| Ordinary expenditure :—                             |                |
| I. Staff.....                                       | 308,140        |
| II. Maintenance.....                                | 26,000         |
| III. Office and correspondence.....                 | 306,000        |
| IV. Library and printing.....                       | 50,000         |
| V. Miscellaneous.. . . .                            | 39,360         |
| Extraordinary expenditure :—                        |                |
| VI. Installation expenses.....                      | 20,000         |
| Total.....  | <u>749,500</u> |
| Surplus for transfer to a special reserve fund..... | 100,000        |



E. COMPARATIVE BUDGET FOR THE YEARS 1908 TO 1910.

| ASSETS.  |         | LIABILITIES.          |           |  |            |                       |         |  |
|--|---------|-----------------------|-----------|--|------------|-----------------------|---------|--|
| Sub heads.   |         | Estimate for the Year |           |  | Sub heads. | Estimate for the Year |         |  |
|  | 1908.   | 1909.                 | 1910.     |  | 1908.      | 1909.                 | 1910.   |  |
| Balance from preceding account . . . . .   |         | 404,500               |           | Staff . . . . .  | 7,300      | 308,140               | 308,140 |  |
| State contributions . . . . .  | 444,000 | 444,000               | * 444,000 | Maintenance . . . . .  | 9,826.70   | 26,000                | 26,000  |  |
| Interest on deposits of the bank of Italy<br>and on a bond for 1,000 lires (nominal) in<br>Italian 3½ per cent stock . . . . . | 2,800   | 1,000                 | 3,000     | Office and correspondence . . . . .                                  | 2,905      | 306,000               | 306,000 |  |
| Contribution by H.M. the King of Italy . . . . .   |         |                       | 300,000   | Library and printing . . . . .                                       | 3,700      | 50,000                | 50,000  |  |
|  |         |                       |           | Miscellaneous (various and unforeseen) ex-<br>penses . . . . .       | 12,468.30  | 39,360                | 36,860  |  |
|  |         |                       |           | Installation expenses . . . . .                                      | 6,100      | 20,000                | 20,000  |  |
|  |         |                       |           | Excess of income over expenditure to be<br>carried forward . . . . . | 404,500    |                       |         |  |
|  |         |                       |           | Special reserve fund . . . . .                                       |            | 100,000               |         |  |
| Total . . . . .  | 446,800 | 849,500               | 747,000   | Total . . . . .  | 446,800    | 849,500               | 747,000 |  |

\* The General Assembly is empowered by the Convention (Art. 10) to raise the unit of subscription to 2,500 francs, beginning in the year 1910. In such a case, the total amount would reach 740,000. A further increase cannot be made without the consent of the governments (Art. 5).



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## APPENDIX No. 21.

## CANADIAN ARCHIVES—REPORT OF THE WORK OF THE BRANCH FOR THE YEAR 1908.

*(Extract from the Report of the Minister of Agriculture.)*

To the Hon. S. A. FISHER,  
Minister of Agriculture,  
Ottawa.

SIR,—I have the honour to submit to you a report of the work of the Archives Branch for the year 1908.

On the 9th of June, 1907 (report of the Department of Agriculture for 1908, p. 54) the Archives Branch had received from France copies of Série B., 'Despatches and Orders of the King concerning the Colonies,' analysed by the late M. Richard as far as volume 23 inclusive. Up to the month of May, 1909, further copies of this series have been received as follows:—

B. 25 (1704) analysed by M. Richard, supplementary report, 1899 (pp. 356-366).

B. 27 (1705-1706) analysed by M. Richard, supplementary report, 1899 (pp. 366-382).

B. 29 (1707-1708) analysed by M. Richard, supplementary report, 1899 (pp. 383-408).

B. 30 (1708-1709) analysed by M. Richard, supplementary report, 1899 (pp. 409-420).

B. 32 (1710) analysed by M. Richard, supplementary report, 1899 (pp. 429-429).

B. 33 (1711) analysed by M. Richard, supplementary report, 1899 (pp. 429-437).

B. 34 (1712) analysed by M. Richard, supplementary report, 1899 (pp. 437-452).

The six volumes represent 4,000 pages of manuscript. Volumes 24, 26, 28 and 31 of series B relate only to the West Indies, and according to M. Richard's report, it is unnecessary to copy them.

In series C 11 of the Colonial Archives, M. Marmette in his report for 1885 (p. xxvi of English version, p. xxvii, French text) mentions under the title 'Continuation of the same series,' sixteen volumes of 'Correspondance Générale.' In his calendar for 1887 (p. cccxv) he says that he has omitted for the present vols. 1-7, inclusive, of this collection as they relate solely to Newfoundland.

These volumes have not been analysed, and as they contain all the correspondence of the Governors of Plaisance from 1661 to 1714, or one year after the Treaty of Utrecht, we have considered it advisable to have them copied immediately, in order that the Archives may possess the most important documents concerning the early administration of Newfoundland.

There has been an addition this year to the série B of seven volumes—

|         |   |                  |
|---------|---|------------------|
| Vol. 1. | North America, Newfoundland, Ile Saint Pierre, Ile Saint Jean,<br>the Magdalen Islands and Ile aux Oiseaux. . . . | (1661-1693)      |
| Vol. 2. | " " " "   | .... (1694-1699) |
| Vol. 3. | " " " "   | .... (1700-1702) |
| Vol. 4. | " " " "   | .... (1703-1705) |
| Vol. 5. | " " " "   | .... (1706-1707) |
| Vol. 6. | " " " "   | .... (1708-1709) |
| Vol. 7. | " " " "   | .... (1709-1714) |



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The period of 1661-1714 includes the administration of all the Governors of Plaisance from the establishment of the colony to the cession to England in 1713.

We have begun to transcribe in France at the Archives of the Minister of Foreign Affairs the series of manuscripts relating to Canada which was analysed by M. Marmette in the report for 1883. Up to the present we have received a copy of vol. 1, 'Fonds Amérique' (1592-1661), mentioned on page 128 of the report for 1883.

From the Bibliothèque Nationale we have received the following documents:—

1. Récit d'une sauvagesse esquimau sur l'établissement des Français au Labrador (Nouvelle Acquisition, 2549).

2. Registre de l'extinction des monnaies de cartes du Canada, qui seront brûlées selon l'arrêt du 29 juin 1764 (Fonds français, 4586).

3. De la pêche et du Commerce des Français en Amérique devers la rivière du Canada et devers Terre-neuve et comme les Anglais les y peuvent empêcher. Des usurpations des Anglais sur les Français en la Nouvelle-France, depuis 1611.

La Nouvelle-France de Terre-neuve découverts par les Français dès 1504. (Fonds français, 4925).

4. Copie d'un édit de création d'un Conseil souverain en la Nouvelle-France. Québec. (Ancien fonds français, 5581, Marine et colonies.)

5. Mémoires touchant la navigation entre autres à Terre-neuve, signés par Rasilly:—

Articles arrêtés entre les deux rois pour la liberté du commerce entre leurs sujets. Plainte publique sur l'interruption du commerce. (Fonds français, 4826).

6. Voyages de Cartier. (Fonds français, 5644).

7. Seconde navigation de Jacques Cartier. (Ancien fonds français, 5653.)

8. 'Mélanges.' Mémoire sur le commerce étranger et maritime. Unsigned, without date, but after 1763. (Fonds français, 5682).

9. Journal de la campagne sur le *Castor* faite au Canada en 1746, par M. Laliées. (Fonds français, 6349.)

From the collection Moreau Saint-Méry, Série F. 3, vol. 24, the following documents have been copied and transmitted to the Archives:—

Campagne des Chicachas.

Journal de de Léry, février 1740.

Lettre de Noyan, 1739.

(See report of Richard, 1905, p. 461.)

## ENGLAND.

In England the following papers have been copied:—

1. Selkirk papers.

This valuable collection relating to the establishment of the Selkirk colony in the province of Manitoba is in the possession of Captain Hope, a descendant of the Selkirk family, at St. Mary's Isle, Kirkeudbright, Scotland. Through the influence of Lord Minto copies were obtained for the Archives under the direction of Mr. Garson, notary of Edinburgh. When the report for 1908 was prepared we had 26 volumes in the Archives, and an index. Twenty new volumes have been received this year, making a total of 46 volumes, or 12,602 pages, which have been arranged in portfolios and indexed for reference.

2. The transcription of colonial correspondence relating to the maritime provinces is being continued. We have received the following volumes this year:—

Prince Edward Island (1814).

Cape Breton (1802-3-4).

Nova Scotia (1803-5-6).



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The volume for 1804 was already in the office. The analysis made by Dr. Brymner of the volumes relating to the maritime provinces terminates on the 31st December, 1801.

3. We have received twenty-four logs of British ships before Louisbourg in 1756, 1757, 1758, namely, logs of the *Oxford*, *Somerset*, *Northumberland*, *Lancaster*, *Terrible*, *Pr. Frederick*, *Nottingham*, *Shannon*, *Bedford*, *Devonshire*, *Vanguard*, *Success*, *Centurion*, *Fougereux*, *Jamaica*, *Norwich*, *Grafton*, *Litchfield*, *Pembroke*.

4. From the General Post Office in England we have received three volumes of copies of correspondence relating to the Canadian Post Office for the years 1841, 1842, 1843. The volumes contain a table of contents. The collection now comprises 17 volumes from 1792 to 1843.

5. The account of George Thew Burke, as secretary, Superintending the Richmond Settlement, Upper Canada, from the 25th December, 1820, to the 24th March, 1823. (Copied from the Audit Office—Declared accounts, settlers—Roll. C., Bundle 2131.)

6. From the Record Office, London, 'A nominal list of the American Loyalists.'

7. The Journal of the House of Assembly of Upper Canada from 1st February to 12th March, 1810. (Copied in Colonial Office—45—vol, 138.)

*Fisheries and Boundaries.*

The questions which are now raised between Canada, the United States and Newfoundland respecting fisheries, the boundaries of Labrador and the Bay of Fundy have made it necessary to carry on research in the Archives of France and England. During the course of the year we have received five large portfolios of documents copied at the Department of Foreign Affairs, France, relating to England and the United States in 1782-1783. We have also received from England several thousand folios concerning the Labrador fisheries taken from the colonial correspondence and the Oswald, Shelburne and Lansdowne collections for the years 1712-1715, 1772, 1782, 1783, 1819-1832, 1841-1850.

The value of these documents which contain the political correspondence exchanged at such an important period of our history is obvious. Further details concerning these papers cannot be given, but they will be of great service in the preparation of memoirs in cases of arbitration or of international conventions. These documents form a special class and for the present are available only for administrative purposes.

It would appear advisable to have copies made of all documents deposited in European Archives bearing on Canada, especially those relating to boundaries, commerce or navigation. We should also possess copies of all preliminary proceedings respecting treaties or conventions between England and other countries which may in any way affect Canada.

The documents copied in Europe are compared before they are sent to the Archives and the place where the original is deposited is marked on each paper. The portfolios are analysed and chronological tables prepared to facilitate search.

## RESEARCH AND TRANSCRIPTION OF DOCUMENTS IN CANADA.

## QUEBEC.

1. During the past year the Abbé O'Leary has continued his work in the province of Quebec, and has made an examination of the documents deposited in public offices and in various private collections.



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Amongst the important documents which he has copied and sent to the Archives are: 'John Polley's Journal which was kept in the year 1775, wherein is contained an account of the battles and skirmishes which happened near Boston between the American and Regular Troops when we were engaged in the Civil War.'

(Copy of the original in the Library of the Chicago Historical Society.)

Copies of two letters presumably written by *General E. A. Theller* whilst a political prisoner in the Citadel, Quebec, dated June 19 and 22, 1838. (These two letters and General Theller's Defence were found in his cell after his escape by Sergeant McDonald of the prison guard. They are now the property of Mr. T. I. Walsh, Quebec.)

Letters, private and official reports, returns, &c., in connection with the American invasion of Canada by General Schuyler, Brigadier General Montgomery, Colonel Arnold and Colonel Ethan Allan, in 1775 (from manuscripts, the property of Mr. Patrick Doyle, Quebec.) With an index of the contents.

Wesleyan-Methodism in Quebec from 1806 to 1849 (extracts from the diary of the late Peter Langlois, a native of Guernsey, born in 1784, February 29), died in Quebec at the age of 82 years.

An inventory of plans and maps deposited in the Crown Lands Department, Quebec.

An inventory of the Civil Status of the District of Quebec deposited in the Registry Office, Quebec.

A general catalogue of the minutes of the Road Surveyors of the Government of Quebec deposited in the Judicial Archives, Quebec, with a copy of the minutes of the Voyer for the city of Quebec (1668 to 1767).

Notes on the Archives of the General Hospital, Montreal.

We have also acquired several fine specimens of manuscripts signed and sealed by officials of the French Régime. They are deposited in the Library of the Archives. The following list will indicate their value:—

#### *List of Manuscripts.*

1668 Talon, Intendant.

Instructions given to Laurent Dubaust, ferryman on the St. Charles river, to pass free all persons going to or coming from the King's Borough, signature.

1670. Bouteroue, Claude, Intendant.

Passport (?) for the Reverend Jesuit Fathers (on parchment). Signature and seal.

1695. Frontenac, Ls. de Buade, Comte de.

Discharge of Pierre Billeron, a private in the Co. of Sr. de Noyan. Signature and seal.

1707. Vaudreuil, Ph. Rigaud, Marq. de.

Raudot, Jacques, Intendant.

Renewal in favour of the Reverend Jesuit Fathers of the right to keep a ferry for passengers on the River Saint Charles between the General Hospital and the Récollet Convent. Signatures (2), and seals (2).

1715. Bégon, Michel, Intendant.

Certificate to the effect that maître Barbet is a Notary Royale for the Prévôté of Quebec. Signature and seal.

1735. Hocquart, Gilles, Intendant.

Prévôté of Quebec. Signature and seal.



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1743. Beauharnois, Chs., Marq. de.

Commission to Ls. Guy as Captain of the 12th Co. Militia of Montreal.  
Signature and seal.

1749. La Jonquière, M. le marq. de.

Bigot, François, Intendant.

Concessions to Sieur Gautier of the Post of 'La Baye des Chateaux' on the north shore of the St. Lawrenec and adjacent islands. Signatures (2) and seals (2).

1752. La Galissonnière.

Private letter. Signature and seal.

1755. Duquesne, M. le Marquis.

Commission of Lieutenant to Sr. Augé in the Co. of Duffy Militia of Montreal and addressed to Sieur de Couagne, Colonel of Militia in the same district. Signature and seal.

1761. Gage, Brigadier General Thomas, Governor of Montreal.

Commission of Lieutenant of Militia to Sr. Carrignan. Signature and seal.

1763. Murray, General James.

Certificate to the effect that M. M. Panet and Saillant are both Notaries Royales. Signature and seal.

The following volumes in the Archives of Quebec have been copied:—

A volume of the Registers of the Military Council of Quebec (13th June to 30th September, 1761).

A volume of the registers of the Prévôté of Quebec (31st August, 1756, to 9th October, 1757).

A register of the Civil Status of the Parish of Montreal (16th August to 31st December, 1728).

A chronological table of the 42 volumes of the Ordonnances des Intendants has also been prepared.

Amongst the manuscripts recently acquired relating to the Province of Quebec, the following will prove of special interest:—

Five letters relating to the services of Captain Douglas (Vice-Admiral Sir Charles) in Canada during the winter of 1776.

A memoiré of Toussaint Pothier on the state of affairs preceding the events of 1837-1838.

Stuart's observations on the union of Lower and Upper Canada, 1823.

Brief remarks on the importance of retaining the British North American Colonies both as British possessions and as an impediment to the progress and power of the United States. Anonymous, about 1839. Important.

A descriptive catalogue of manuscripts deposited in the Hôtel-Dieu, Quebec.

Journals of Admiral Bayfield concerning his explorations in the Gulf and River St. Lawrence (1829-1853). Six volumes donated by Mr. Bayfield, of Vancouver.

A number of pamphlets and political papers, donated by Lady Caron.

During the preparation for the celebration of the Tercentenary of the foundation of Quebec many researches were made in the Archives in connection with official publications, and we have made a collection of 10 volumes of printed extracts from Journals and correspondence relating to the event.

The list of all the subscribers is also deposited in the Archives.



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## ONTARIO.

Papers collected by Mr. Laidlaw and deposited in the Archives, 1908-1909:—

1. *Capt. Johnston's Diaries*.—These diaries belong to Mr. W. H. Johnston, of Pefferlaw, Ont., and were brought to the Archives to be copied if deemed advisable.

2. *Minute BoPoks Rideau Methodist Circuit*. Received from Mr. James Ross, of Smith's Falls, on the understanding that they were to be returned to him if he so desires. (1819-1874.) (1823-1826.)

3. *Gilkison Papers*.—This collection consisting of manuscripts, diaries, printed books, &c., is the property of Miss Augusta I. G. Gilkison, of Brantford, Ont. Miss Gilkison has sent a number of the papers to the Archives for examination, with a view to their purchase by the department if considered of sufficient value.

4. *James Anderson Papers*.—The originals are in the possession of Mr. James Anderson, of Sutton, Ont. Copy of this collection was made by Mr. Laidlaw for the Archives (in 4 volumes).

Journals of Arctic expeditions in search of Sir John Franklin (1885). He was a chief factor. Journey from Fort Simpson, Mackenzie, to the mouth of the Great Fish river, via Great Slave lake, &c., with index (vol. 1).

Letters to and from Lady Franklin with index (vol. 2).

Letters and journals with index (vol. 3).

Journal of a trip made from Fort Simpson to Fort Good Hope in 1854 (vol. 4).

5. *Charles Jones Papers*.—These papers which were found in the Court House at Brockville, were donated to the Archives by the County Council of Leeds and Grenville, a resolution to that effect being passed at a session of that body in June, 1908 (2 vols.).

6. *Askin Papers*.—These papers consist of general and private correspondence of John and Charles Askin, of Detroit and Sandwich, covering a period of over sixty years—1779 to 1840; Military papers, 1794-1815; diaries, 1774 to 1823; account books, journals, ledgers, &c., 1787 to 1825.

7. *Talbot Settlement*.—Papers on Talbot settlement (2 vols).

The papers fill 40 large portfolios and the account books, &c., are about 15 in number.

These papers were found amongst the documents transferred by the Privy Council.

### *Land Grants in Ontario.*

In the Department of Crown Lands, Ontario, a list has been copied of the land grant which will prove useful for future research.

Land grants under Lieutenant-Governors Simcoe and Hunter, arranged alphabetically according to district. Three portfolios.—M. 805, 806, 807.

2. Fiats, military, emigrant grants. (Regulations of the 6th July, 1804, and 29th July, 1820.)

Dates of Attorney-General Fiats (1821 to 1835) numbered 1 to 1,800. There is an index of names in alphabetical order at page 165.

Fiats, Militia and Landlords, issued under tickets of location instituted in the year 1819 (1833-1845), numbered LB 600 to LB 1,093. Index of names in alphabetical order at page 32.

Fiats, United Empire Loyalists (Regulations 6th July, 1804). (1820-1835) numbered 4,302 to 4,408. Book number 3. Index of names in alphabetical order at page 15, M. 808.

3. Surveyor General's locations (1803-1807), pages 1 to 95. Index of names in alphabetical order at page 95.



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Surveyor's General's locations (March, 1811, to August, 1819) and militia locations (1820), pages 1 to 131. Index of names in alphabetical order after page 131.

Locations by agents (page 1 to 261). From page 294 to page 347, there is an index of names in alphabetical order. On page 1 there is an index of locations in each of the following townships:—Dummer, Ramsey, Duro, Otonabee, Ennismore, Emily, Asphodel, Ops, Smith, Harvey, Belmont, Verulan, Fenelon, St. Vincent, Horton, McNab, Victoria, Seymour, and Bathurst and Ottawa districts (Newcastle district, 1839-41) Midland district, Dummer (31-34).

At page 19, list of emigrant settlers from the south of Ireland located by Peter Robinson in 1823.

Irish emigrant settlers in Duro in 1826, page 31.

“ “ Otonabee, 1825, page 33.

“ “ Ennismore, 1825, page 35.

“ “ Emily, page 37.

“ “ Asphodel, 1825, page 42.

“ “ Ops, 1825, page 43, M. 809.

List of land grants. Fiats No. 3 (1820-1833) Nos. 1657-2661. After page 101 there is an index of names in alphabetical order.

4. List of land grants (1833-1839). (Full fee regulations, 1804.) Fiats No. 4, Nos. 2,662 to 3,861. After page 141 there is an index of names in alphabetical order.

Docket book for Attorney General's Fiats on Grants, 1803-1816.

Index of names in alphabetical order, at the end of book.

List of persons having asked warrants from the Surveyor General. Arranged in alphabetical order (fees unpaid), pages 1 to 23.

Land Fiats issued under commissioner's reports, pages 24-159.

List of persons having asked warrants from the Surveyor General, arranged in alphabetical order (fees paid), pages 1-17.

Land fiats issued by commissioners (1832-45). Pages 1-73. After page 73 there is an index of names in alphabetical order. M. 810.

*Ottawa old periodicals.*

Mrs. Rogers, of Ottawa, has donated to the Archives a number of old newspapers relating to the capital:—

Old periodicals, Ottawa, Bytown... ..1813-1900

“ “ ... ..1855-1904

Manuscripts *re* early times Bytown... ..1833-1904

Agricultural Society minute books—magazines... ..1868-1903

Photographs... ..1832-1839

Divers pamphlets... ..1879-1903

“ “ ... ..1891-1901

This collection forms seven portfolios of considerable interest.

MARITIME PROVINCES.

Dr. Hannay has continued his investigations in the maritime provinces and during the course of the year three instalments of his work have been received:—

1. A collection of the inscriptions on tombstones in the cemeteries of New Brunswick, especially at Fredericton and in the county of York.

2. Observations on the maritime provinces.

3. A complete analysis of the papers of the Legislature of New Brunswick for the years 1786, 1787, 1789, 1791, 1797, 1807, 1817, 1821, 1823, 1825, 1826 and 1827 to 1838.



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We have acquired 16 volumes of historical notes on the Acadians of the Madawaska district, and three volumes of papers of the New Brunswick boundaries. The original letters and sermons of Father Ligogue, missionary to the Acadians at Baie Sainte Marie (1799-1844).

Two volumes of documents relating to the Acadian refugees after 1758 have been copied at Boston.

MANITOBA AND THE NORTHWEST TERRITORIES.

While continuing the work of transcribing the Selkirk papers in Scotland, the office has obtained copies of the papers of Murdoch on the early days in Calgary; the minutes of the council of Assiniboia; two volumes relating to the troubles in Manitoba in 1885-1886; a copy of the evidence taken at the close of the Rebellion in 1869-70; the proclamation signed by Louis David Riel, captured at Batoche, donated to the Archives by Colonel Sherwood, C.M.G.

BRITISH COLUMBIA AND VANCOUVER.

The Archives has received the following journals relating to the province:—

|                                |             |
|--------------------------------|-------------|
| Journal of John Work.. . . . . | (1823-1835) |
| “ Ermatinger.. . . . .         | (1828)      |
| “ Dean.. . . . .               | (1829)      |
| “ Tolmie.. . . . .             | (1830-33)   |
| “ Douglas.. . . . .            | (1835)      |
| “ Tod.. . . . .                | (1841)      |
| “ Pemberton.. . . . .          | (1855)      |

*Work carried on in the Archives Branch.*

During the current year Lieutenant Colonel Cruikshanks has been engaged in the preparation of an inventory of the military papers of the Imperial troops stationed in Canada until 1871. The documents date from 1786 at the time that Lord Dorchester was Commander-in-Chief of the Forces. They form a collection of 1,847 volumes. Besides these volumes there are 350 portfolios of miscellaneous papers relating to the militia which have not been classified. The inventory prepared by Lieut.-Col. Cruikshanks is in the press. An addition of 112 portfolios of papers relating to the Canadian militia has been made to our collection. These documents have been gathered from different branches of the service.

*List of Military papers added to the Manuscript section (1908-1909).*

|   |          |
|---|----------|
| War Claims—General numbers.. . . . .                                      | 28 vols. |
| “ Class “ .. . . . .  | 2 “      |
| “ unnumbered (alphabetical order).. . . . .                               | 2 “      |
| Powers of Attorney and Certificates.. . . . .                             | 1 “      |
| Schedules and Indexes.. . . . .   | 7 “      |
| Receiver General’s list of claims paid.. . . . .                          | 1 “      |
| Receipts .. . . . .   | 4 “      |
| Board of Claim’s correspondence and accounts.. . . . .                    | 1 “      |
| Board of Proceedings, Reports, &c.. . . . .                               | 2 “      |
| War Claims, U. C., 4th and supplementary classes. Schedules and Indexes.. | 1 “      |
| War Office, Letters sent.. . . . .  | 8 “      |
| War Department, Letters sent .. . . . .                                   | 1 “      |
| Horse Guards, Letters sent.. . . . .                                      | 6 “      |
| Circulars from the War Office Guard Book, 1841-45.. . . . .               |          |



## SESSIONAL PAPER No. 15

|  |        |
|--|--------|
| Treasury Chamber, Letter sent, 1850-54.. . . . .                               | 1 vol. |
| Prince Edward Island Militia, Correspondence, 1858-63 .. . . .                 |        |
| "    "    Army    "    1835-67 .. . . .  | 1 "    |
| War Department Lands, Buildings, &c., in Canada, 1855-77.. . . .               | 1 "    |
| "    "    "    "    1878-89.. . . .  | 1 "    |
| Hills vs. Col. Fraser <i>et al</i> , Report of Trial, 1856-57.. . . .          | 2 "    |
| Royal Irish Rifles, Correspondence <i>re</i> Interior Economy.. . . .          | 1 "    |
| Transfer of Barracks, Buildings and Lands to the Dominion Government..         | 1 "    |
| Royal Engineers, New Brunswick—Miscellaneous, 1864-67.. . . .                  | 2 "    |
| "    "    Lands, Buildings and Barracks, 1826-69.                              | 1 "    |
| "    "    "    "    1827-72.. . . .  | 1 "    |
| "    "    "    "    1865-73.. . . .  | 1 "    |
| Perambulation reports and plans, New Brunswick.. . . .                         | 1 "    |
|  | —      |
|  | 78     |
| Royal Engineers, New Brunswick—  |        |
| Intercolonial and Progress Reports, 1833-1850.. . . .                          | 1 "    |
| Reports and estimates of works and repairs, 1835-1850.. . . .                  | 1 "    |
| Monthly returns, extra pay, &c.. . . .   | 1 "    |
| Royal Engineers, Nova Scotia—  |        |
| Miscellaneous, 1856-1878.. . . .   | 1 "    |
| "    1865-1883.. . . .   | 1 "    |
| War Department—Lands in Nova Scotia, 1855-1864.. . . .                         | 1 "    |
| "    "    "    1865-1881.. . . .   | 1 "    |
| Lands in Nova Scotia—Cancel leases, 1855-1882.. . . .                          | 1 "    |
| Barracks, Nova Scotia, 1866.. . . .  |        |
| Lands at Sydney, C.B., 1858.. . . .  | 1 "    |
| Weekly returns of attendance at Divine service, Halifax, 1888.. . . .          | 1 "    |
| Letters and other papers, Halifax and out stations, 1844, 1848, 1849 and 1851. | 1 "    |
| Royal Engineers—Champlain and St. Lawrence Railway, 1852-1857, Kings-          |        |
| ton miscellaneous, 1846-1856 .. . . .  | 1 "    |
| Inspector General, Halifax—Letters received from the Ordnance Office,          |        |
| Nos. 1065-1140, 1850-51.. . . .  | 1 "    |
| Letters received at Halifax from the Inspector of Fortifications, England,     |        |
| 1856.. . . .   | 1 "    |
| Principal medical officer—Certificates and correspondence, 1885.. . . .        | 1 "    |
| Report of Main Guard mounted at Halifax, January to March, 1838.. . .          | 1 "    |
| Royal Engineers—Intercolonial Railway encroachments on War Department          |        |
| Lands, 1855-1882.. . . .   | 1 "    |
| "    Boundaries of the King's Wharf, Quebec, 1852, &c.. . .                    | 1 "    |
| Commissariat papers, 1847, 1856, 1866, 1870, Nova Scotia and New Bruns-        |        |
| wick.. . . .   | 1 "    |
| Commissariat papers, New Brunswick, 1867.. . . .                               | 1 "    |
| "    "    "    1868.. . . .  | 1 "    |
| Establishment of Meteorological Observatories at Kingston and Quebec,          |        |
| 1852-1854.. . . .  | 1 "    |
| Garrison Chaplains in the Maritime Provinces, 1846-51.. . . .                  | 1 "    |
| New Brunswick Volunteer and Militia, 1839, 1860 and 1862.. . . .               | 1 "    |
| Indexes.. . . .  | 1 "    |
| Miscellaneous correspondence, 1780-1899.. . . .                                | 45 "   |
| War Department, 1861-1879.. . . .  | 14 "   |
| Horse Guards, 1861-1876.. . . .  | 4 "    |
| Telgrams, 1863-1876.. . . .  | 1 "    |



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|  |    |      |
|--|----|------|
| Deserters, 1872-1873.. . . . .   | 1  | vol. |
| Military Secretary odd Nos. 7, 1858-1872.. . . . .   | 6  | "    |
| Office of Ordnance, 1840-76.. . . . .  | 1  | "    |
| Sedentary Militia, Montreal District, 1813.. . . . .   | 1  | "    |
| Quebec and Montreal Volunteer Militia, 1812-1814.. . . . .   | 1  | "    |
| Canadian Voltigeurs, 1812-1823.. . . . .   | 1  | "    |
| Canadian Chasseurs, 1813-1815.. . . . .  | 1  | "    |
| Canadian Voyageurs, 1812-1814.. . . . .  | 1  | "    |
| Embodied Militia, Quebec city, 1812-1813.. . . . .   | 1  | "    |
| "    Quebec district, 1812-1814.. . . . .  | 1  | "    |
| "    Trois Rivières district, 1812-1814.. . . . .  | 1  | "    |
| "    Independent Companies, Montreal district, 1813.. . . . .  | 1  | "    |
| "    1st Battalion, 1812-1815.. . . . .  | 4  | "    |
| "    2nd    "    1812-1814.. . . . .   | 3  | "    |
| "    3rd    "    1812-1815.. . . . .   | 4  | "    |
| "    4th    "    1812-1815.. . . . .   | 4  | "    |
| "    5th    "    1812-1814.. . . . .   | 2  | "    |
| "    6th    "    1813-1814.. . . . .   | 2  | "    |
| Upper Canada Militia, Muster Rolls pay-list.. . . . .  | 1  | "    |
| Militia Pensions, Upper Canada, 1836-1841.. . . . .  |    |      |
| "    Canada West, 1841-1867.. . . . .  |    |      |
| "    Dominion of Canada, 1867-71.. . . . .   | 50 | "    |
| Militia General orders, 1812-1869.. . . . .  | 5  | "    |
| War Claims, Upper Canada—Powers of Attorney to Robert Grant and S. Street, of Niagara, 1836-37.. . . . . | 1  | "    |
| Northwest Rebellion, General Middleton's reports on engagements with the Rebels, 1885.. . . . .          | 1  | "    |
| Claims, Rebellion Losses, 1847.. . . . .   | 1  | "    |
| "    "    1852-1853.. . . . .  | 3  | "    |
| Ottawa and Rideau Canal, 1855-1857.. . . . .   | 1  | "    |
| Statements of Services in the Army, 1868-72.. . . . .  | 1  | "    |
| Claims in connection with the Fenian Raids, 1865-66.. . . . .  | 1  | "    |
| Military Secretary to the Governor General, letters received, May to December, 1867.. . . . .            | 1  | "    |
| Adjutant General of Militia, letters received, 1856-65.. . . . .   | 34 | "    |
| "    "    drafts of letters sent.. . . . .   | 2  | "    |
| Militia Orders in Council, 1818-1869.. . . . .   | 1  | "    |
| Attorney General's opinion on Militia matters, U.C., 1838-1846.. . . . .                                 | 1  | "    |
| Claims for Medals, by Militiamen, Upper and Lower Canada, 1850-1851.. . . . .                            | 1  | "    |
| Replies to confidential circular of August, 1862, <i>re</i> promotions in the Canadian Militia.. . . . . | 1  | "    |
| Militia Service Rolls, 1863.. . . . .  | 1  | "    |
| Cash Accounts, Dorchester Light Dragoons and Corps of Guides, Lower Canada, 1812-1815.. . . . .          | 1  | "    |
| Militia Receipts for clothing, transports, &c., Upper Canada, 1866.. . . . .                             | 1  | "    |
| Militia Rolls and pay-lists and annual returns, different regiments, U. & L.C. 1812-1813.. . . . .       | 1  | "    |
| Requisitions, Receipts, 1865-1866.. . . . .  |    |      |
| Commission Receipts, 1856-1863.. . . . .   |    |      |
| Pay-lists which accompanied the accounts for the quarter ended March 31, 1857.. . . . .                  | 1  | "    |
| School of Military Instruction, 1864.. . . . .   |    |      |
| Promotions and Appointment, 1855.. . . . .   | 1  | "    |



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|  |        |
|--|--------|
| New Brunswick Volunteer Militia acquittance Roll, 1868.. . . . .   |        |
| Target Practice, 1864-1867.. . . . .   |        |
| General Court Martial, 1825-1854.. . . . .   | 1 vol. |
| Militia Pension. Pay from Nov. 1, 1866, to April 30, 1867. Vouchers 1-60.  |        |
| Pay from May 1, 1867, to October 31, 1867. Vouchers 1-58.  |        |
| Ridgeway Pension Claims Nos. 71-80, 1866 .. . . . .  | 1 "    |
| Contracts for supplies.  |        |
| Inspection Reports, Volunteer Force, 1864-65.  |        |
| Application for compensation, 1867.  |        |
| Requisitions for clothing, 1866.. . . . .  | 1 "    |
| Quarterly Returns, 1866-1867.  |        |
| Half-yearly Returns, 1859-1863.  |        |
| Blue-book Returns, 1855-1866.  |        |
| Upper Canada General Returns of Vol. Servicemen, 1862.   |        |
| Return of Employees in Adjutant General's Office, 1866-1867.   |        |
| Return of appointments and recommendations, 1866.. . . . .   | 1 "    |
| Accounts current of Paymasters, 1865-1869.. . . . .  | 1 "    |
| Volunteer Militia Pay-lists—Active Service, 1866 .. . . . .  | 1 "    |
| "            "            1862.. . . . .   | 1 "    |
| Pay-lists of the Lennox Militia, 1812-1813.  |        |
| Muster Rolls and pay-lists of the 9th Co. of Division of Isle Jésus, 1813.   |        |
| Muster Rolls and pay-lists of the Royal Montreal Troop of Volunteer Cavalry with Terrebonne Division, Capt. George Platt, 1812-1814 .. . .                               | 1 "    |
| Volunteer Militia. Monthly Pay-lists, Forms C., January to April, 1865..   | 1 "    |
| Militia Districts, Lower Canada—Drill of Volunteers, 1862, Nos. 5 to 10 inclusive (weekly state).. . . . .   | 1 "    |
| Militia Rolls, L.C.—Abstract of 1864-1865.. . . . .  | 1 "    |
| Militia Districts, U.C., Nos. 1 to 8, 1860-1862—Drill of Volunteers (weekly state).. . . . .   | 1 "    |
| Monthly Pay-list—Volunteers, 1855-1856.. . . . .   | 1 "    |
| Militia—Annual Returns of Regiments, U.C., 1824-1825.. . . . .   | 1 "    |
| "            "            Battalions, 1856-1859.. . . . .  | 1 "    |
| Militia Districts, U.C., Inspection Report, July to Dec., 1861.. . . . .   | 1 "    |
| Non-Active Militia—List of Promotions and nominations, 1863-66.. . . .   | 1 "    |
| Militia Pensions—Enrolled Pensioners, enrolled local Pensioners, July 1, 1854, to June 30, 1859. Compensation in lieu of land, July 1, 1854—June 30, 1878, C.W.. . . . . | 1 "    |
| Nominal Roll, 1863-1865.. . . . .  | 1 "    |
| Liste de recommandations pour promotions et nominations, 1861-1865, Nos. 2 à 11 et autres.. . . . .  | 1 "    |
| Commissions in the Militia, 1838-1862.   |        |
| Lease to retire from Militia with rank, 1850-51.. . . . .  | 1 "    |
| Register number 5—Claims of Militiamen of 1812, Nos. 2,810 to 3,571.. . .  | 1 "    |
| Military L. C. Commission receipts, 1856-1864.. . . . .  | 1 "    |
| Military Districts, U.C., Annual returns, 1856, 1859-62.. . . . .  | 1 "    |
| Militiamen entitled to land, War 1812-1815.. . . . .   | 1 "    |
| Militiamen land claims.. . . . .   | 17 "   |
| Militiamen land claims, 1820-1827.. . . . .  | 1 "    |
| Militia Pensions, U.C. Accounts, 1828-32 .. . . . .  | 1 "    |
| "            C.W., Pay-lists and vouchers, 1843-1845 .. . . . .  | 1 "    |
| "            1856.. . . . .  | 1 "    |
| "            1854-57.. . . . .   | 1 "    |
| "            1857-58.. . . . .   | 1 "    |



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DEPARTMENT OF AGRICULTURE

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|   |        |
|---|--------|
| Militia Pensions, Receipts, 1840-1848.. . . . .   | 1 vol. |
| “ “ 1855-60-61.. . . . .  | 1 “    |
| “ “ 1862-65.. . . . .   | 1 “    |
| “ “ 1864-65.. . . . .   | 1 “    |
| “ “ 1866 .. . . . .   | 1 “    |
| “ Petitions, L.C., 1870-1840.. . . . .  | 1 “    |
| “ “ U.C., 1837-1841.. . . . .   | 2 “    |
| Militia Pay-lists, Annual Drill, 1856-1858.. . . . .  | 2 “    |
| “ Weekly Drill, 1857.. . . . .  | 1 “    |
| “ “ 1858.. . . . .  | 2 “    |
| “ “ 1860.. . . . .  | 2 “    |
| “ Nos. (1-121), 1867.. . . . .  | 1 “    |
| Volunteer Militia, Monthly pay-lists, 1866.. . . . .  | 1 “    |
| “ “ 1867.. . . . .  | 3 “    |
| “ pay-lists, 1864-1865.. . . . .  | 6 “    |
| “ “ 1865-1866.. . . . .   | 1 “    |
| “ “ 1866-1867.. . . . .   | 3 “    |
| “ “ 1867-1868.. . . . .   | 1 “    |
| Militia Correspondence. Odd Nos., 1841-1867.. . . . .                                       | 9 “    |
| Militia Muster Rolls. Independent Cos., L.C., 1864-66.. . . . .                             | 1 “    |
| Militia—Application for Pensions, 1851-1867.. . . . .                                       | 2 “    |
| “ “ Positions, 1854-1865.. . . . .  | 1 “    |
| Adjutant General of Militia—Letters received, 1812-35, L.C.. . . . .                        | 1 “    |
| “ “ “ 1812-37, U.C.. . . . .  | 1 “    |
| “ “ “ 1838-40, U.C.. . . . .  | 3 “    |
| “ “ “ 1841-67.. . . . .   | 22 “   |
| Newspaper clippings on Militia matters, 1859-1860 and 1863, and some un-<br>dated.. . . . . | 1 “    |
| Militia Adj. Genl.—Letters received, no date.. . . . .                                      | 1 “    |
| War 1812-1814 (from the Privy Council).. . . . .  | 4 “    |
| Fenian Raid (from the Privy Council).. . . . .  | 1 “    |
| Miscellaneous documents (1846-65).. . . . .   | 1 “    |

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*Papers removed from the Department of the Secretary of State and other offices.*

In conformity with an Order in Council passed in 1903, several departments have sent to the Archives most of their records prior to Confederation. A temporary classification has been made; the papers have been arranged in chronological order by provinces, and 1,889 portfolios have been added to the manuscript section from these sources. Each portfolio contains about 300 documents. The papers have been distributed as follows:—

Papers relating to Upper Canada (1823-1867).. . . . . 631 vols.  
Papers relating to Lower Canada.. . . . . 256 “  
To these volumes may be added:—

Papers from the Department of Indian Affairs—  
Upper Canada.. . . . . 30 “  
Lower Canada.. . . . . 18 “



## SESSIONAL PAPER No. 15

## Parliamentary papers—

|  |        |
|--|--------|
| Acts of Upper Canada (1797-1847) . . . . .   | 1 vol. |
| Statutes of Upper Canada (1817-1828) . . . . .   | 1 “    |
| Ordinances of the Special Council of Lower Canada, 1837 . . . . .                                  | 1 “    |
| “ “ “ “ 1838 . . . . .   | 1 “    |
| “ of the Province of Quebec, 1777 . . . . .  | 1 “    |
| Parliamentary papers, Upper Canada, 1839-1847 . . . . .  | 1 “    |
| Writs of Summons to the Legislative Council, L.C. . . . .  | 1 “    |
| “ of Election, L.C., 1800 . . . . .  | 1 “    |
| “ “ “ 1801-1816 . . . . .  | 1 “    |
| “ “ “ 1820-1821 . . . . .  | 1 “    |
| “ “ “ 1827-1830 . . . . .  | 1 “    |
| “ “ “ 1832-1833 . . . . .  | 1 “    |
| Writs and returns of elections, P. of C. and D. of C., 1854-74 . . . . .                           | 1 “    |
| Recapitulation of votes given in Election of 1858, C.W. . . . .                                    | 1 “    |
| Appointments of Returning Officers and correspondence (1812-1837) . . . . .                        | 1 “    |
| Analytic Index to the State Books (1841-1867) . . . . .  | 2 “    |
| Acts—Upper Canada, 1853, 1st Session, 4th Parliament, 16 Vic., Caps. 191-267 . . . . .             | 3 “    |
| “ “ 1854-55, 1st Session, 5th Parliament, 18-19 Vic., Caps. 1-251 . . . . .                        | 5 “    |
| “ “ 1856, 2nd Session, 5th Parliament, 19-20 Vic., Caps. 1-140 . . . . .                           | 2 “    |
| Sessional Papers, U.C. . . . .   | 1 “    |
| Executive Council, L.C., Draft of minutes . . . . .  | 1 “    |
| Journals of the Leg. Council, U.C., 1815 . . . . .   | 1 “    |
| House of Assembly, Addresses, 1835-36-38 . . . . .   | 1 “    |
| Legislative Assembly, Executive Council, Public Works, Crown Lands, Sundries (1842-1866) . . . . . | 1 “    |
| Parliamentary papers (printed) (1810-1882) . . . . .   | 1 “    |
| Petitions, L. & U. Canada (1805-1824), (1823-1834), (1835-49) . . . . .                            | 3 “    |
| Addresses to Sir H. B. Head <i>re</i> his departure from U.C. . . . .                              | 1 “    |
| Oaths of office and State Oaths . . . . .  | 1 “    |
| Addresses to Leg. Council (1807-1851) . . . . .  | 2 “    |
| Petitions from L. & U. Canada . . . . .  | 2 “    |
| Journals of the Leg. Assembly, P. of C., 1847 . . . . .  | 1 “    |
| Municipal Act, L.C., 1847 . . . . .  | 1 “    |
| Foreign Prints (1818-1840) . . . . .   | 1 “    |
| Provincial Secretary Papers (1839-1860) . . . . .  | 2 “    |
| Index to Provincial Secretary Correspondence (1832-1840) . . . . .                                 | 1 “    |
| Fiats and Warrants, Provincial Secretary to Attorney General, C.W. (1843-1860) . . . . .           | 8 “    |
| Addresses to the House of Assembly (1809-1837) . . . . .   | 3 “    |
| Governor General's Secretary's Correspondence (1827-1865) . . . . .                                | 21 “   |
| “ “ “ “ (1841-1853) . . . . .  | 1 “    |
| Application to the Governor General for his recommendation to the Legislature . . . . .            | 1 “    |
| Auditor General's Report, C.E. . . . .   | 1 “    |
| Public Accounts, U.C. . . . .  | 2 “    |
| Public Accounts, L.C. (1815-1832) . . . . .  | 7 “    |
| Public Accounts, U.C. & L. C. (1825-1840) . . . . .  | 1 “    |
| Administration of Justice (Hesse District) . . . . .   | 1 “    |
| Court of Requests, U.C. . . . .  | 1 “    |



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|   |        |
|---|--------|
| Grand Jurors of Montreal.. . . .  | 1 vol. |
| Commissioners of Peace, U.C.. . . .   | 1 "    |
| Commissioners of Small Causes.. . . .   | 1 "    |
| Bailiffs' Bonds, U.C. (1857-67).. . . .   | 4 "    |
| Court Summons, U.C. (1796-1831).. . . .   | 1 "    |
| Oaths of Office.. . . .   | 1 "    |
| Criminal Cases, C.W. (1842-56).. . . .  | 1 "    |
| Attorney General Monk's Claims.. . . .  | 1 "    |
| Attorney General's Correspondence, C.W. (1842-1866).. . . .   | 11 "   |
| Provincial Secretary Cash Books, L.C. 1808.. . . .  | 1 "    |
| Index to Provincial Secretary's Letters (1831-34).. . . .   | 1 "    |
| Trinity House, Quebec, 1815.. . . .   | 1 "    |
| List of Vessels which entered Port of Quebec (1810-1820).. . . .                                    | 1 "    |
| Montreal Customs, Accounts, Returns (1843-44).. . . .   | 1 "    |
| Montreal Customs, Boarding Bills, 1844.. . . .  | 1 "    |
| Customs, Port of Sandwich, 1804-1807.. . . .  | 1 "    |
| Customs, Port of Montreal, 1845-6.. . . .   | 1 "    |
| Ports in U.C., duties collected (1840-1-2).. . . .  | 1 "    |
| Port of Quebec, duties collected (1795, 1838-9, 1841-6-7).. . . .                                   | 1 "    |
| Port of Prescott, 1823-30.. . . .   | 1 "    |
| Customs, U.C., 1833.. . . .   | 1 "    |
| Imports, U.C.. . . .  | 4 "    |
| Seizures.. . . .  | 2 "    |
| Customs Returns, U.C., 1827-28.. . . .  | 1 "    |
| Emigration Papers, Miscellaneous, C.E. (1845-51).. . . .  | 1 "    |
| Passes to Emigrants, U.C.. . . .  | 1 "    |
| Quarantine Passports, Grosse Isle (1834).. . . .  | 2 "    |
| Canals .. . . .   | 2 "    |
| Trent River Improvements (1838-40).. . . .  | 1 "    |
| Bank of Upper Canada.. . . .  | 1 "    |
| Roads, Pay-lists Accounts (1854-66).. . . .   | 8 "    |
| Municipal By-laws, C.W. (1842-46).. . . .   | 5 "    |
| Crown Lands and Clergy Reserve, C.E. (1842).. . . .   | 1 "    |
| Land Grants, Township of Hinchinbrooke (1831-1840).. . . .  | 1 "    |
| Land Papers, C.W. (1846-54).. . . .   | 1 "    |
| Mulloch & Rochester, Land Papers, Township of Nepean (1852-53).. . . .                              | 1 "    |
| Crown Lands Department, C.W. (1859-61).. . . .  | 1 "    |
| Land Papers.. . . .   | 1 "    |
| Land Grants.. . . .   | 1 "    |
| Alphabetical Lists of Land Papers transferred to Crown Lands Department<br>of Quebec (1819).. . . . | 1 "    |
| Cultivation of Hemp, U.C. (1808-13).. . . .   | 1 "    |
| Census.. . . .  | 1 "    |
| Census, U.C. & P. of Q. (1826-62).. . . .   | 1 "    |
| School Returns.. . . .  | 4 "    |
| Education Bill, U.C., 1837.. . . .  | 1 "    |
| Educational Pamphlets.. . . .   | 2 "    |
| Post Office Commission Correspondence (1840-41).. . . .   | 1 "    |
| Pedlars Licenses.. . . .  | 1 "    |
| Tavern Licenses, Quebec, 1845.. . . .   | 1 "    |
| Red River Rebellion.. . . .   | 1 "    |
| A. Comeau, Police Inspector, Montreal, Police Orders, 1841-3.. . . .                                | 1 "    |
| P. E. Leclerc, Police Magistrate, Montreal, Letter Books, 1838-39.. . . .                           | 1 "    |



## SESSIONAL PAPER No. 15

|  |        |
|--|--------|
| Rules, Regulations and By-laws for the guidance of the Montreal Police and the Proclamation fixing the limits of the City for Police purposes, 1839. | 1 vol. |
| Draft of Dispatches, Colborne to Glenelg.. . . . .   | 1 "    |
| Observations on the removal of Sir John Colborne as Lieut.-Governor of Upper Canada, by W. L. McKenzie, 1831.. . . . .                               | 1 "    |
| Executive Council Reports (1842-3).. . . . .   | 1 "    |
| Official and Private Correspondence of Mr. Himsworth, Clerk of the Executive Council (1842-74).. . . . .   | 1 "    |
| Private Papers of F. W. & C. O. Ermatinger (1836).. . . . .  | 2 "    |
| "    Edward W. Gray's Estates (1818-27).. . . . .  | 1 "    |
| "    J. H. Dunn, Receiver General (1821-33) U.C.. . . . .  | 1 "    |
| Various Registers and Indexes.. . . . .  | 1 "    |
| Foreign documents.. . . . .  | 1 "    |
| Bundle of Gazettes and old papers.. . . . .  | 5 "    |
| Secretary of State's Papers.. . . . .  | 110 "  |
| Dispatches submitted to Council.. . . . .  | 38 "   |
| Procès Viger, seizure of 'La Minerve'.. . . . .  | 1 "    |
| Rebel property confiscated, 1837-38.. . . . .  | 1 "    |
| Drafts of Letters from Bathurst (1818).. . . . .   | 1 "    |
| Drafts to Secretary of State from Governor of L. C.. . . . .   | 1 "    |
| Militia Commissions signed by Durham.. . . . .   | 1 "    |
| Total.. . . . .  | 1,289  |

## PRIVY COUNCIL PAPERS, UPPER CANADA.

These papers date from 1767 to 1841, and in addition there are the Orders in Council and Proceedings in Council from 1841 to 1867. They make in all about nine hundred portfolios, and naturally fall into four leading classes, viz., State Papers, Land Papers, Military Papers and Public Accounts.

## STATE PAPERS.

Under this heading are the numbered state papers which have been arranged in regular order, alphabetically and chronologically, so as to correspond with the reference numbers in the State Books; rough Minutes of Council and rough Drafts of Reports to Council; Lieutenant-Governor's office correspondence; Executive Council office correspondence; Oaths of allegiance; Orders in Council; proceedings in Council; and printed documents, including proclamations, commissions, &c.

## LAND PAPERS.

The most voluminous of the land papers are the petitions for grants of land and leases of land, which have been arranged according to date and in alphabetical order to correspond with the number references in the Land Books. When petitions are missing, the number of such are marked on the packages. Quite a number of the earlier petitions were not numbered. These have also been arranged according to date and alphabetically and a schedule made of each package indicating the names of the petitioners.

The other papers consist of Minutes of the District Land Boards and documents pertaining thereto; reports of commissioners appointed to investigate claims upon lands and secure titles to the rightful owners; Heir and Devisee Commission reports; official reports by deputy surveyors and others on the quality of soil and nature of the country in the various districts of the Provinces; Land Warrants; Land Rights; Land Certifi-



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ates, as to character of applicants for grant of land; certificates *re* performance of settlement duties; land exchanges and surrenders; recommendations for land; bonds; correspondence to and from the Surveyor General's office. The land papers, especially the petitions for grants, are of particular interest. As it was necessary for the petitioners to state very fully the grounds on which they based their claims for recognition or favour from the government, they are rich in family history and also contain many references which throw important side-lights on other subjects.

MILITARY PAPERS.

They deal chiefly with the War of 1812-15, and consist of correspondence between military officers and the government, muster rolls, pay-lists, &c.

PUBLIC ACCOUNTS.

These cover a period of over fifty years from 1788 to the Union of 1841, and have been divided as far as possible under office headings.

MAPS AND PLANS.

Among the inclosures with the state and land papers were many maps and plans illustrating the subjects dealt with. These have been transferred to the map room so marked on both the maps or plans and on the documents to which they belong as to make easy reference from one to the other. Some of these maps are very old and of much interest.

When these papers were received at the Archives, many of them, especially those of early date, were very much torn and otherwise mutilated. In order to keep them intact they have been repaired and put in excellent condition.

CLASSIFICATION.

Following is a list of the papers as classified with the number of folios of each:—

STATE PAPERS.

|   |          |
|---|----------|
| Papers numbered to correspond with reference numbers in State Books,    |          |
| 1767-1841.. . . .   | 46 vols. |
| Rough Minutes of Council and rough Drafts of Reports, 1790-1840.. . . . | 11 “     |
| Executive Council Office—Correspondence, 1792-1840.. . . .              | 6 “      |
| Lieut.-Governor's Office—Correspondence, 1792-1840.. . . .              | 9 “      |
| Oaths of Allegiance, 1793-1815.. . . .                                  | } 1 “    |
| Powers of Attorney, 1795-1844.. . . .                                   |          |
| Fiats—Attorney General, 1835-1836.. . . .                               |          |
| Printed Documents, Proclamations, &c., 1789-1835.. . . .                | 2 “      |
| Orders in Council, 1841-1867.. . . .                                    | 82 “     |
| Proceedings in Council, 1841-1866.. . . .                               | 77 “     |

LAND PAPERS.

|  |       |
|--|-------|
| Petitions for grants of land or leases of land, 1788-1840.. . . .  | 508 “ |
| Land Boards of Lunenburg, Stormont and Glengarry, Matilda, Leeds and Grenville—Minutes and other papers, 1789-1804.. . . .   | 2 “   |
| Land Boards of Mecklenburg, Addington, Lennox, Hastings and Prince Edward, Midland, Adolphustown, Kingston and Newcastle—Minutes and other papers, 1789-1794.. . . . | 1 “   |
| Land Boards of Nassau and Lincoln—Minutes and other papers, 1787-1794.   | 1 “   |



## SESSIONAL PAPER No. 15

|   |         |
|---|---------|
| Land Boards of Hesse, Kent and Essex—Minutes and other papers, 1765-1804.. . . . .  | 3 vols. |
| Land Certificates, 1783-1811.. . . . .  | 9 “     |
| Land Warrants, 1796-1806.. . . . .  | 2 “     |
| Certificates of character and of performance of settlement duties, 1781-1817.   | 1 “     |
| Acknowledgments, Affidavits, Bonds, Land Receipts, &c., 1788-1835.. . .   | 1 “     |
| Land Exchanges, Surrenders, &c., 1788-1856.. . . . .  | 1 “     |
| Recommendations for land, &c., 1789-1801.. . . . .  | 1 “     |
| Vouchers and Bonds <i>re</i> land, 1794-1828 .. . . . .   | 1 “     |
| Land Commissions—Reports of Commissioners appointed to investigate claims upon land and secure titles to those entitled thereto:— |         |
| Western and London Districts, 1798-1804.. . . . .   | 1 “     |
| Home and Niagara Districts, 1799-1806.. . . . .   | 2 “     |
| Newcastle and Gore Districts, 1803-1804.. . . . .   | 1 “     |
| Midland District, 1797-1804.. . . . .   | 1 “     |
| Johnstown District, 1800-1804.. . . . .   | 1 “     |
| Eastern District, 1797-1804.. . . . .   | 1 “     |
| Surveyor General's Office—Correspondence, Reports, &c., 1793-1840...  | 10 “    |
| Heir and Devisee Commissions—Reports, 1805-1834.. . . . .   | 2 “     |
| Heir and Devisee Claims, 1841-1853.. . . . .  | 1 “     |
| Official reports on quality of land in various sections of the province by deputy surveyors and others, 1826.. . . . .            | 2 “     |
| St. Regis Indian Affairs, 1811-1840.. . . . .   | 1 “     |
| Land Rights, 1838-1840.. . . . .  | 1 “     |
| Deeds, &c., say.. . . . .   | 25 “    |
| Register of Upper Canada Militia land grants for services during the War of 1812.. . . . .  | 1 “     |
| Register of land certificates.. . . . .   | 1 “     |

## MILITARY PAPERS.

|   |      |
|---|------|
| Correspondence, 1811-1815.. . . . .               | 4 “  |
| Muster Rolls, pay-lists, &c., 1812-1815.. . . . . | 21 “ |

## PUBLIC ACCOUNTS.

|  |      |
|--|------|
| Crown Lands, 1788-1841.. . . . .                   | 15 “ |
| Clergy Reserves, 1825-1841.. . . . .               | 1 “  |
| Receiver General's office, 1792-1840.. . . . .     | 16 “ |
| Surveyor General's office, 1792-1841.. . . . .     | 6 “  |
| Clerk of Assembly's office, 1794-1808.. . . . .    | 1 “  |
| Attorney General's office, 1796-1808.. . . . .     | 1 “  |
| Secretary of the Province, 1792-1840.. . . . .     | 4 “  |
| Lieutenant Governor's office, 1792-1808.. . . . .  | 1 “  |
| Clerk of the Council's office, 1792-1840.. . . . . | 3 “  |
| Miscellaneous, 1792-1841.. . . . .                 | 21 “ |

## RECAPITULATION.

|                           |           |
|---------------------------|-----------|
| State Papers.. . . . .    | 234 vols. |
| Land Papers.. . . . .     | 580 “     |
| Military Papers.. . . . . | 25 “      |
| Public Accounts.. . . . . | 69 “      |
| Total.. . . . .           | 911 “     |



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## DURHAM PAPERS.

The office has received as a gift from the Earl of Durham a complete collection of the correspondence of Lord Durham in 1838, consisting of 18 volumes. An analytic index has been prepared.

## BAGOT PAPERS.

During the current year Captain Josceline Bagot has presented to the Archives the original correspondence of Governor Sir Charles Bagot. These papers were loaned to the Archives several years ago and copies were made for our use. The original correspondence, however, is a valuable addition to our manuscripts.

## INDEX AND CLASSIFICATION.

During the year 19,237 index cards have been prepared, divided as follows:—

|                             |        |
|-----------------------------|--------|
| Index of names.. . . .      | 51,033 |
| Index of Series 'C'.. . . . | 5,943  |
| Index of Series 'G'.. . . . | 1,500  |
| Index of Series 'S'.. . . . | 22,865 |
| Index of Library.. . . .    | 10,377 |
| Index of newspapers.. . . . | 3,519  |
|                             | <hr/>  |
|                             | 95,237 |

The cards have been typewritten, classified and distributed in alphabetical order. An index has also been prepared of documents relating to Assiniboia and to the surrenders of Indian lands.

During the year we have received 1,698 requests for information, not including verbal inquiries. Many of the inquiries involved lengthy research and transcription.

Before proceeding to make a definite classification of the manuscripts in the Archives it has been found desirable to prepare an inventory of each series. The inventories of series A, B, C, E, G, and of the registers from the Department of the Secretary of State and from the Privy Council are complete.

These inventories when printed will serve as a guide to the contents of the Archives and will greatly facilitate research.

A complete analysis of the reports of the Archives from 1872-1908, with an index, is now in the hands of the printer. A volume prepared by Mr. H. P. Biggar on the voyage of the Cabots is also now in the press.

We have acquired during the past year many objects of historic value, among them the Plan in Relief of Quebec made about the year 1800 by J. B. Duberger. This plan was deposited in Woolwich Arsenal in 1811 and was transferred to Canada by the authorities of the War Office.

From Lady Caron we have received four flags belonging to the Canadian militia in 1775. During the celebration in Quebec in 1908 Lord Lovat presented to the Archives the painting of Sir Benjamin West, P.R.A., representing the death of General Simon Fraser at Braam's Heights, near Saratoga, on the 7th of October, 1777. This canvas is of considerable value and is much appreciated by visitors to the Archives. On the same occasion His Royal Highness the Prince of Wales presented to Canada the chair used by General Wolfe during the campaign of 1759. From the Misses Tupper, of Guernsey, we have received the coat worn by General Brock at the battle of Queenstown Heights.



## SESSIONAL PAPER No. 15

## ENGRAVINGS.

The collection of prints and engravings in the Archives is undoubtedly the most complete in America. Important additions have been made this year. The publication of a catalogue as a guide to visitors is desirable.

## SECTION OF MAPS AND PLANS.

There are 6,000 maps in this section. A temporary catalogue has been prepared for publication. Several important maps have been acquired during the past year, including the following:—

Copies of five plans made by Catalogne.

1709 par les ordres de Monseigneur Le Comte de Ponchartrain Commandeur des Carte du gouvernement de Québec levée en l'année Ordres du Roy Ministre et Ecrétaire Destat par le Sr. Catalogne Lieutenant des Troupes et Dressée par Jean Bte Decouagne.

Suite du Gouvernement de Quebec qui Comprend et dessendant le Fleuve St Laurent depuis le Cap Tourmente jusqu'au Cap aux Oyes levée en 1709, par les ordres de Monseigneur Le Comte de Ponchartrain Commandeur des Ordres du Roy Ministre et Secrétaire Destat par Le Sr Catalogne Lieutenant des Troupes et Dressée par Decouagne.

Suite du Gouvernement de Quebec qui comprend en descendant Le Fleuve Saint Laurent Depuis la Riviere Duchesne jusqu'au celle du Cas Rouge levée en 1709 par les ordres de Monseigneur Le Comte de Ponchartrain Commandeur des Ordres du Roy Ministre et Secrétaire Destat par Le Sr Catalogne Lieutenant des Troupes et Dressée par Jean Baptiste Decouagne.

Carte du Gouvernement des Trois Rivières qui comprend en descendant Le Fleuve St Laurent depuis La Sortie du Lac St Pierre jusqu'à Ste Anne. Levée en 1709 par les ordres de Monseigneur le Comte de Ponchartrain, Commandeur des ordres du Roy Ministre et Secrétaire destat par le Sr Catalogne Lieutenant des Troupes et dressée par Jean Baptiste Decouagne.

Suite du Gouvernement des Trois Rivières qui comprend en descendant Le Fleuve St Laurent depuis les Isles de Richelieu jusqu'à la Sortie du Lac St. Pierre Levée en 1709 par Les ordres de Monseigneur le Comte de Ponchartrain Commandeur des ordres du Roy Ministre et Secrétaire destat par Le Sr Catalogne, Lieutenant des Troupes et dressée par Jean Baptiste Decouagne.

Carte Reduite du Golphe St Laurent, Contenant l'Isle de Terre Neuve et Partie de la Coste des Esquimaux l'Isle Royale, l'Isle St. Jean et celle d'Anticosti &c. Dressée au Depost des Cartes Plans et Journaux de la Marine Pour les services des Vaisseaux du Roi, Par Ordre de M. Rouillé Ch. Comte de Jouy &c. Ministre et Secrétaire d'Etat ayant le Departement de la Marine MDCCLIV.

Map of Part of Canada, from Bay de la Val and Island of Barnaby in the River St. Lawrence to the Lakes Huron and Erie. (This map is a reduction from one compiled in the Surveyor General's Office, dated at Quebec, 1st October, 1790, Sgd. Samuel Holland, Surveyor General. John Collins, D.S.G. Endorsed Canada Case 37 No. 48 1790.)

Canada 45. 2n Part of His Majesty's Province of Quebec, from Montreal Westward. Part of the Ottawa River, the River Iroquois, as far as Kingston, the South Shore and Part of the North Shore of Lake Erie, Detroit River and part of Lake St. Clair, &c., &c. Finished 16 March, 1790.

A chart showing relative portion of the British Islands and British America . . . to accompany Report on the projected Intercolonial Railway, by Sandford Fleming, C.E.



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Map of the proposed Postal Route from British America to the West Indies and of the Existing Inter-Colonial Mail Lines, &c., 1866.

Government Map of part of the Huron and Ottawa Territory, &c., Thomas Devine, F.R.G.S., 1866.

A Survey of Lake Ontario, done by H. Laforce of the Naval Department, & Lewis Kotté Assistant Engineer The North Shore in 1788, and the East and South Shores in 1789 by Order of His Excellency The Rt. Honble Lord Dorchester, Governor and Commander in Chief, &c., &c. Copied from the Original Survey in the Drawing Room of the Engineers Department at Quebec by Wm. Hall, Draughtsman. Examined Gotther Mann, Captn. Commandg. Rl. Engrs. Endorsed: Referred to by Lord Dorchester in his letter No.        of the

The above is, as far as the map is concerned, a duplicate of Q.S. 25. In the latter the title is in the centre, instead of the upper left hand corner, and it bears in the right hand corner, at the bottom, the words, 'Enclosed in Lord Dorchester's Letter No. 28, Quebec, 24th October, 1788, Vol. 47.'

Also 'A Survey of Lake Ontario done by H. Laforce of the Naval Department' Lewis Kotté Assistant Engineer in 1783 and 1789. (Formerly Case 42, No. 21.) Key Map. Copied from Original in Colonial Office Library, London. Map No. 40 by J. H. Brigby.

Route of the Canadian Couriers from Montreal to Skenesborough 1788.

A Plan of the River St. John, in the Province of New Brunswick, with the Post Route or communication by that River from the City of St. John on the Bay of Fundy to the River Saint Lawrence. Copied from a plan, compiled from actual Survey, by the Surveyor General of the said Province by Isaac Nelden, Surveyor 1792.

Map of Nova Scotia, showing Post Routes (Duplicate of M.S. 155).

Sketch of the Bay of Fundy. 1792.

Sketch of the Route from Fort Cumberland to Fredericton, D. Campbell, Mil. Secy, about 1799.

Plan of the New Settlements from Point à Bodet to Niagara: W. Chewett, D.P.S. 1789.

Also 1 Book intituled:—'The American Military Pocket Atlas; Being an Approved Collection of Correct Maps, Both General and particular of The British Colonies, especially those which now are or probably may be, The Theatre of War: Taken principally from actual Surveys and judicious Observations of Engineers De Brahen and Romane; Cook Jackson and Collet; Maj. Holland and other officers. Employed in His Majesty's Fleet and Armies.—London; Printed for R. Sayer and J. Bennett Map & Print sellers No. 53 Fleet Street.'

A plan entitled: 'Southwold and part of Westminster—Showing the situation of the roads through Southwold and the Connection formed by the Road thro' Westminster. Scale forty chains to an inch. Signed Mahlon Burwell, Deputy Surveyor.

Copy: Survey: Gen: Office, 20 April 1812. Thos Ridout, Survey Genl. 12th Nov. 1811.

During the year 1260 maps have been mounted, repaired and mended.



## SESSIONAL PAPER No. 15

## INVENTORY of the Manuscript Books, Portfolios, Registers and Indexes actually on the Shelves in the Stack Room.

| Series. | Contents.   | No. of Volumes. |
|---------|---|-----------------|
| A.      | Bonquet Collection.....   | 35              |
| B.      | Haldimand Collection.....   | 247             |
| C.      | Military Correspondence.....  | 1,999           |
| D.      | Durham Collection.....  | 21              |
| E.      | Executive Council Papers.....   | 1,830           |
| F.      | Documents copied in France.....   | 407             |
| Fi.     | Department of Finance.....  | 24              |
| G.      | Despatches, &c., from the Gov. General's Office.....                            | 572             |
| G.G.S.  | Papers Rec'd. from the Gov. Secy. Office.....                                   | 137             |
| I.      | Rec'd. from Indian Dep't.....   | 11              |
|         | " " (also 280 original Deeds).....  |                 |
| M.      | Miscellaneous documents and Correspondence.....                                 | 1,119           |
| M.D.    | Papers from Dep't. of Militia and Defence.....                                  | 445             |
| Q.      | Colonial Office Records concerning P. of Q., L.C., & U.C. ....                  | 809             |
| S.      | Documents and Books from the Dep't. of the Sec'y. of State and Miscellaneous .. | 5,756           |
|         | Correspondence of the Archives Office.  |                 |
|         | Letters received.....   | 29              |
|         | " Sent.....   | 23              |
|         |   | 52              |
|         | Total.....  | 13,534          |

## LIBRARY.

New acquisitions.—660 volumes have been added to the library during the year.

I have the honour to be, sir,

Your obedient servant,

ARTHUR G. DOUGHTY,

*Dominion Archivist.*

OTTAWA, July, 1909.







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